

CATALOGUE
1909



MONNIER
AUTO SUPPLY CO.
DETROIT, MICHIGAN

INTRODUCTION

WITH the publication of this Catalogue, all previous editions and quotations are cancelled. PRICES quoted are those RULING at the time of going to press, and are subject to change WITHOUT NOTICE. All goods are guaranteed by manufacturer of same.

Terms. Orders under FIVE DOLLARS must invariably be accompanied by cash. We do not ship c. o. d. unless order is accompanied by remittance of 50 per cent. of amount, if under ten dollars; 33 1/3 if over ten dollars.

Payment. We POSITIVELY REFUSE to accept personal checks. Send us drafts on DETROIT, CHICAGO or NEW YORK banks, express or postoffice money orders.

Mail Orders. If goods are ordered by mail, the necessary amount for postage MUST be added, and EIGHT CENTS FOR REGISTRATION.

We DO NOT guarantee safe delivery of mail packages.

Claims. Claims must be made IMMEDIATELY upon receipt of goods, and will not be recognized after FIVE days.

Instructions. To avoid delays in filling your order, please be careful to write your NAME and ADDRESS PLAINLY; be particular in writing out your order; give us NUMBER, ARTICLE and PRICE of each item.

Route. It will greatly facilitate the work of our Shipping Department if you will specify the RAILWAY or EXPRESS COMPANY shipment is to be made by. If you fail to do so, we use our own discretion as to route.

Notice. Read the above carefully; it will prove mutually beneficial.

Order Early. We have made all preparations to be in a position to FILL YOUR ORDERS PROMPTLY and with the LEAST POSSIBLE DELAY, but in the height of the season we are busy people and wish that you would consider this and send your order AHEAD OF TIME.

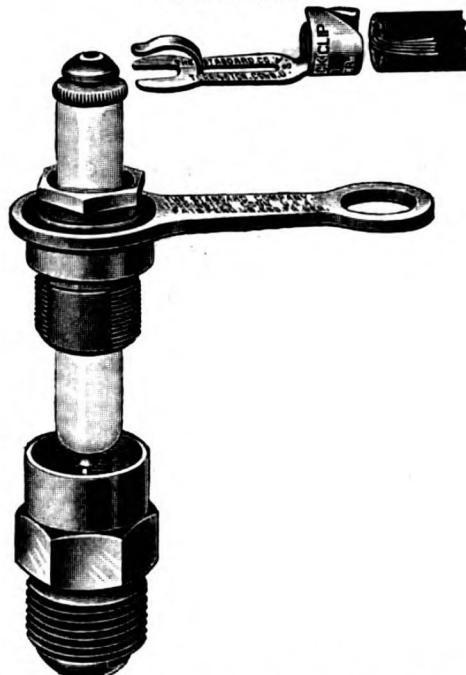
Hoping to hear from you frequently, we remain,

Yours respectfully,

MONNIER AUTO SUPPLY CO.

68 CONGRESS STREET EAST
DETROIT, MICH.

BREECH BLOCK PLUG (Porcelain)



Breech is fitted with a triple thread which permits placing the handle in any position. Don't crank till you are black in the face, just open Breech, drop a little gasoline in Plug chamber, and throw in switch. Breech can be opened, primed and locked in five seconds. Breech-Block Plugs will stand more soot and oil than any other Plug.

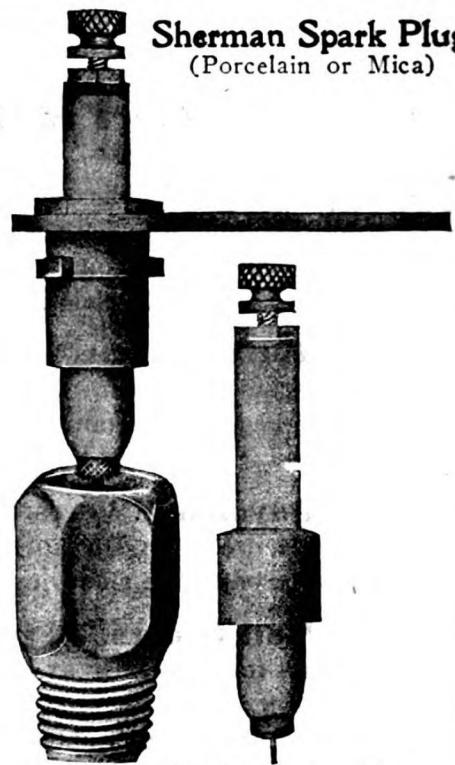
½ inch Standard.....	Price \$2.50
Metric	Price 2.50
Winton	Price 2.50
Autocar or Association Standard..	Price 2.50
Porcelain complete with Firing Pin.	Price 0.50
Clip Terminal	Price 0.15

RAJAH PLUG (Porcelain)



½ inch Standard.....	\$2.00
Metric	2.00
Association Standard	2.00
Extra Porcelain, complete...	0.50
Clip Terminal.....	0.10

Sherman Spark Plug (Porcelain or Mica)



"New Special Features."

Quick detachability, improved method of packing the porcelain, the mounted porcelain being a separate part of the plug, a simple, strong locking device with adjustable handle; by making the mounted porcelain a separate part of the plug, the disagreeable unsatisfactory job of packing a porcelain should it happen to break, is avoided; porcelain is all packed ready to be dropped in place, and no further packing is required, in cold weather, or with a balky engine the spark plug can be used as a priming cup.

All sizes Porcelain.....	Price \$1.50
All sizes Mica.....	Price 1.50
Extra Porcelain or Mica Core.....	Price 0.50
Two Extra Porcelain or Mica Core in a strong wood case.....	Price 1.25

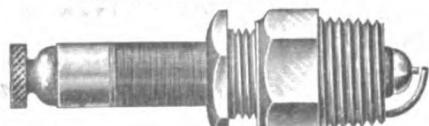
HARVEY PLUG (Mica)



Insulation is specially wound mica of the highest quality, and is guaranteed to give satisfaction.

½ inch Standard or Metric.....	\$1.50
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DOW PLUG (Mica)



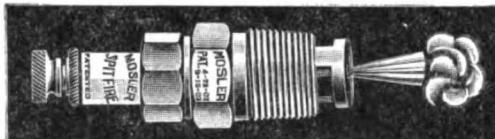
Core is double insulated mica, and will not break down under any voltage obtained.	
½ inch Standard or Metric.....	\$1.50
Extra Core complete · Original from	0.75

UNIVERSITY OF MICHIGAN

SPARK PLUGS

SPIT FIRE PLUG, $\frac{1}{2}$ IN. STANDARD

(Porcelain)



SPIT FIRE PLUG METRIC

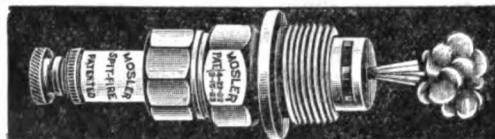
(Porcelain)



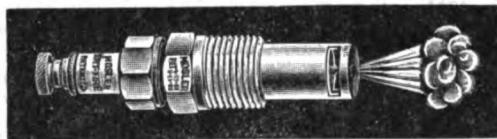
Price	Each	\$1.50	Price	\$1.50
Price Porcelain only.....		.25	Price Porcelain only.....	.25
Price Porcelain complete.....		.50	Price Porcelain complete.....	.50
Price Firing Pin.....		.25	Price Firing Pin.....	.25
Price Thumb Nut .....		.10	Price Thumb Nut.....	.10

SPIT FIRE PLUG, AUTOCAR OR
ASSOCIATION STANDARD

(Porcelain)

SPIT FIRE PLUG, WINTON
OR $\frac{1}{2}$ IN. LONG

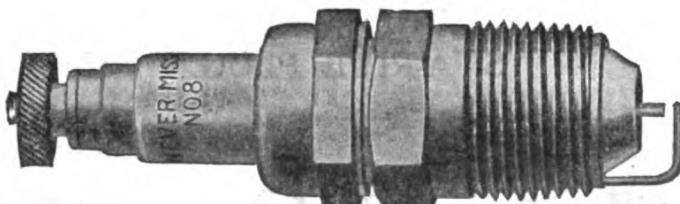
(Porcelain)



Price	\$2.00	Price	\$1.50
Price Porcelain only.....	.25	Price Porcelain only.....	.25
Price Porcelain complete.....	.50	Price Porcelain complete.....	.50
Price Firing Pin.....	.25	Price Firing Pin.....	.25
Price Thumb Nut.....	.10	Price Thumb Nut.....	.10

NEVER MISS PLUG NO. 8

(Porcelain)

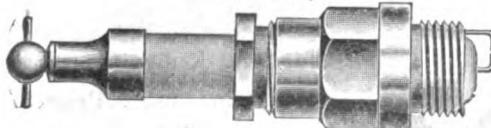


Porcelain in this Plug is imported, and can be taken apart and assembled with ease; large hollow core acts as a cleaner when firing takes place; it carries a strong guarantee and will give perfect satisfaction.

Price, all sizes..... \$1.00

SPLITDORF PLUG

(Porcelain)



"The name denotes Quality."

Rex, $\frac{1}{2}$ inch Standard..... \$1.50
Iridium Platinum, $\frac{1}{2}$ inch..... 2.00

CONGRESS PLUG

(Porcelain)

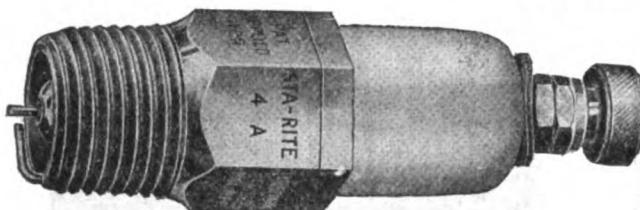


This Plug is of the De Dion type, and gives very good satisfaction.

$\frac{1}{2}$ inch Standard or Metric..... \$0.75
Price, extra porcelain complete..... .20

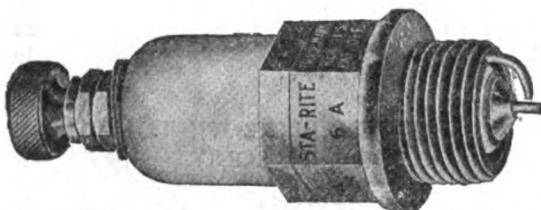
STA-RITE SPARK PLUGS

Porcelain.



STA-RITE PLUG

Porcelain.

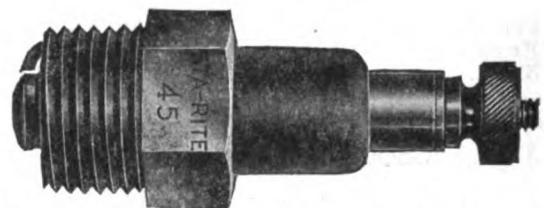


No. 22A. Metric size only. An excellent
Motor Cycle Plug Price \$1.25

No. 4A. $\frac{1}{2}$ in. Standard \$1.25
Porcelain Tube only25
Porcelain Cap only15
Package Packing Washers . .15

STA-RITE PLUG

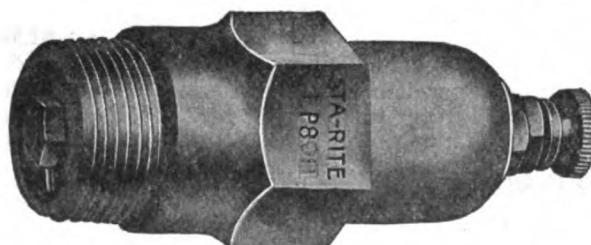
Mica.



No. 25. $\frac{1}{2}$ in. Standard only. Made for air
cooled or hot engines Price \$1.00

STA-RITE PLUG

Porcelain.



No. 8A. Autocar size only Price \$1.25
Porcelain Tube only Price .25
Porcelain Cap only Price .15
Package Packing Washers.... Price .15

STA-RITE PLUG

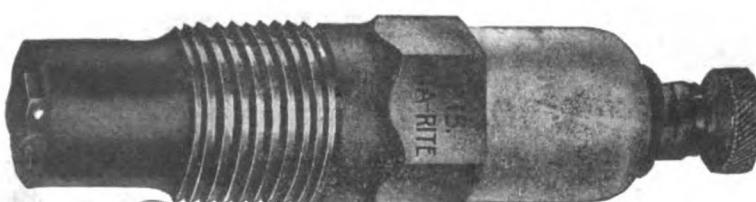
Porcelain.



No. 55. Partly closed end protects
hollow tube porcelain, enlarged
chamber in shell provides larger
air space; $\frac{1}{2}$ in. standard only.
Price \$1.00

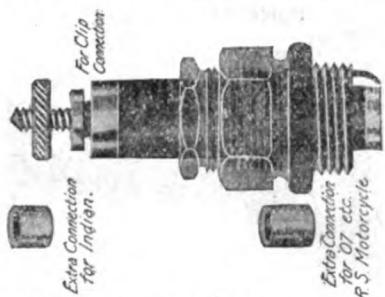
STA-RITE PLUG

Porcelain.



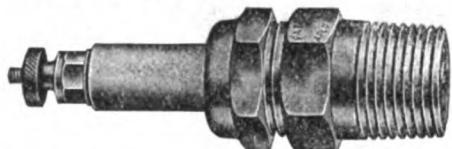
No. 15A. Known as Winton,
or $\frac{1}{2}$ in. long ..Price \$1.25
Porcelain Tube only.. .25
Porcelain Cap only15
Package Packing Washers.
Price Original from15

BENFORD MOTOR CYCLE PLUG (Mica)

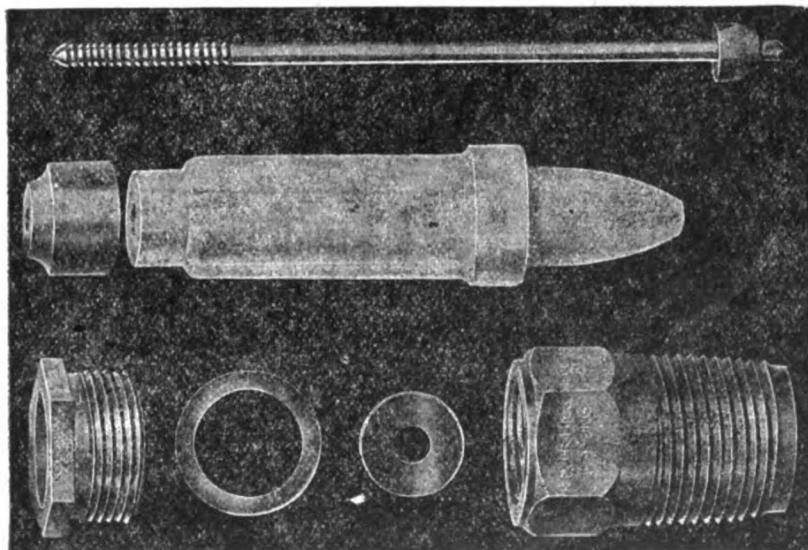


The best Motor Cycle Plug made. Can be taken apart and cleaned in an instant. Nothing but the best white sheet mica is used. Central electrode is turned from solid non-corrosive meteor wire.
 Metric size only. Price.....\$1.00
 Price core complete50

BROWN PLUG (Porcelain)



The Spark Plug known for excellence, giving energetic ignition, great power, and will stand up under tremendous voltage owing to porcelain being of the highest grade imported.
 $\frac{1}{2}$ inch Standard or Metric.....\$1.50
 Porcelain complete50

MONNIER SPARK PLUG
(Porcelain)

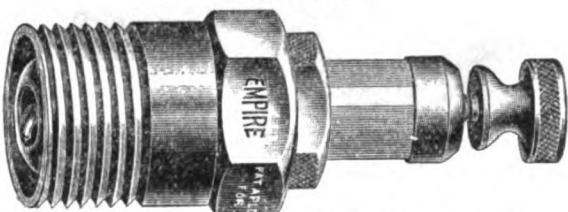
eliminate Spark Plug troubles, such as Cracked Porcelains, due to made for expansion; short circuiting and Sooted Point, due to no Air Chamber allowance. I ask a trial order and am sure you will be satisfied.

Metric	\$1.50	Extra Porcelain complete, regular.....	0.50
$\frac{1}{2}$ inch Standard.....	1.50	Extra Porcelain complete, Winton.....	0.60
Extra Porcelain only, regular	0.30	Extra Firing Pin.....	0.20
Extra Porcelain only, Winton.....	0.40	Extra Thumb Nut.....	0.08

Monarch Spark Plug
(Porcelain)

One of the best Spark Plugs in the market, it is simple in construction, easy to repair or replace porcelain, thoroughly mechanical and has proven very satisfactory.

Price	\$1.00
Price Porcelain complete	0.50

EMPIRE PLUG
(Porcelain)

Has a practically enclosed end forming a protecting compression chamber for the porcelain, so that the direct flame and heat of combustion in the cylinder do not reach the porcelain.

$\frac{1}{2}$ inch Standard or Metric.....	\$1.50
Extra Porcelain	0.35
Extra Firing Pin	0.30

The Plug that fills a long felt want, no Wrench or Pliers required to assemble or disassemble Porcelain, Firing Pin, Expansion Washer, or Cap. Firing Pin has cup shaped end with Vulc. Asbestos washer, making a tight joint. Porcelain is cored large enough to allow expansion of Firing Pin; between Porcelain and Brass Cap is placed a spring washer which also allows Firing Pin to expand in case of an over-heated engine. Porcelain is cushioned with an asbestos copper Gasket, also allowing for expansion. Every part that enters into Plugs construction has carefully been studied, so as to

no allowance having been made for expansion; short circuiting and Sooted Point, due to no Air Chamber allowance. I ask a trial order and am sure you will be satisfied.	Extra Porcelain complete, regular.....	0.50
	Extra Porcelain complete, Winton.....	0.60
	Extra Firing Pin.....	0.20
	Extra Thumb Nut.....	0.08

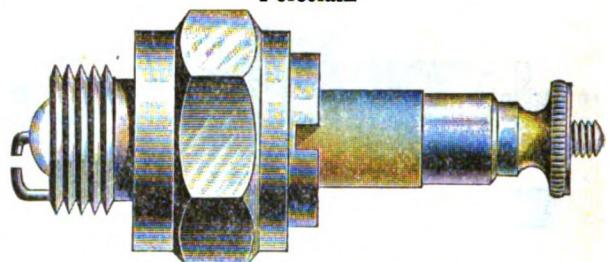


STA-RITE PLUG

Porcelain.

GENUINE DE DION PLUG

Porcelain



"Imported from France."

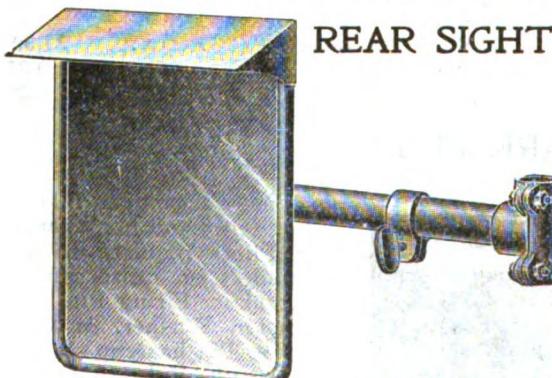
Metric only \$1.50

SOOT PROOF PLUG (Porcelain)



No. 18. For Cadillacs.

Price complete	\$2.50
Price Iron Shell less plug	2.00
Extra Cap	.15
Extra Tube	.25
Package Packing Washers	.15



REAR SIGHT

See What's Coming.

This Mirror allows the driver to see at a glance the movements of all vehicles behind, enabling him to turn, or reverse without hazarding the safety of his passengers.

Equip your car with one or two of these accident eliminators and prevent any chance of trouble.

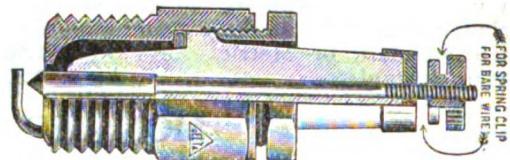
Can be attached to any car in a few minutes. The telescopic arm—with ball and socket attachment—make it adjustable to suit any conditions. Size 8 1/2 x 6. Brass mounted.

Price \$10.00

"FIRE"

"FIRE"

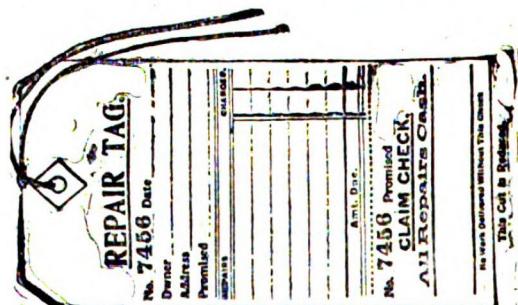
DELTA PLUG (Porcelain)



Highest grade imported hard fire porcelain, carefully selected, which goes to manufacture a high grade Spark Plug.

1/2 inch Standard or Metric \$1.50
Porcelain, complete50

SHOP REPAIR TAGS—WIRED



Price per 100 \$0.40
Price per 1000 3.00

"FIRE"



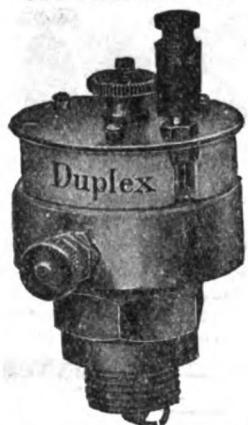
Your automobile, when on the road, is liable to fire at any time. It may be caused by back fire through carburetor, overheated muffler, leaky tanks, friction, collision, acetylene gas lamps, etc. When the fire breaks out you may not only be miles from home but may be miles from the nearest house or fire department. Unless the fire is quickly extinguished the gasoline tank will explode.

Equip your car with "Fitefire," it is so effective, simple and handy that you can always feel safe from fires of any cause. Price \$3.00

Google

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DUPLEX ATTACHMENT



Pulling out little switch will make your Spark Plug fire no matter how foul. Just pull the little switch and your motor will immediately resume perfect firing.

Price \$2.50

SPARK INTENSIFIER



By removing one of the screws it can be placed on spark plug. Gap induces an increased spark at points of plug.

Price \$0.25

CADILLAC MICA CORE



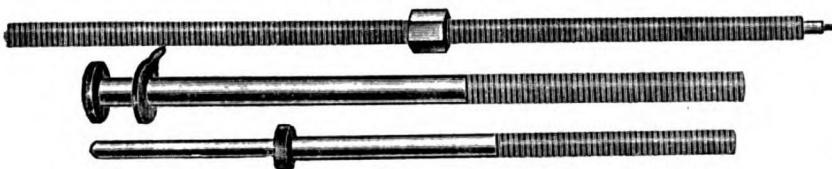
For Cadillac Spark Plugs.
Price \$0.75

REPAIR PORCELAIN



Repair Porcelain, complete Price \$0.25
Repair Mica Core, complete Price .75

FIRING PINS FOR SPIT-FIRE, STA-RITE AND SOOT PROOF SPARK PLUGS



Price Each \$0.25

SPARK PLUG PROTECTORS (or Hoods)

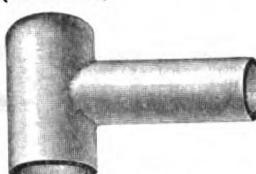


Fibre Spark Plug

Nuts



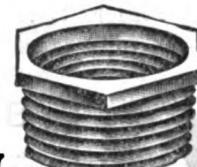
Split-Fre Soot Proof
Price \$0.07



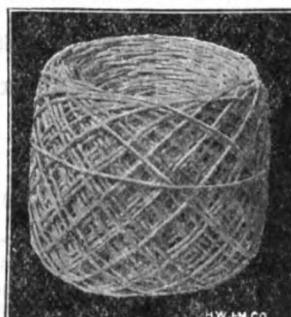
SPARK PLUG BUSHING

For bushing metric spark plugs to $\frac{1}{2}$ inch standard.

Price \$0.25

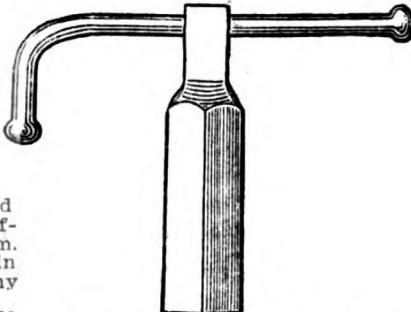


ASBESTOS YARN



No. 503. For packing spark plugs. Price per yard \$0.15

SPARK PLUG SOCKET WRENCH



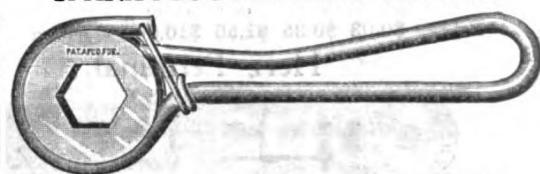
Rubber.

Owners of Launches and Automobiles cannot afford to be without them. They protect porcelain from water. Fits any plug.

Fibre Hood, Price .. \$0.50
Rubber Hood, Price .75

Consists of a one piece socket which fits tightly over bushing in spark plug.
Price \$1.00

SPARK PLUG RATCHET WRENCH



They are strong, neat and durable, and will not wear the corners of spark plugs.

Price \$1.00

CLEANING BRUSHES



TRADE  MARK.

No. 11 Single Row Price \$0.15
No. 22 Double Row Price .20
Oval Tire Brush Price .30

SPARK PLUG BRUSH



HAIROTUFT STEELS
WIRE BRISTLES

No use now for sandpaper, rags or tooth brush to clean your plug. Strong wire for grease and dirt, a tuft of bristle hair for fine parts Price \$0.25

FRICTION TAPE

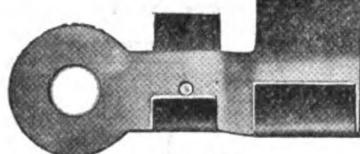


1 oz. Roll. $\frac{3}{4}$ in. wide, each \$0.05
 $\frac{1}{2}$ lb. Roll. $\frac{3}{4}$ in. wide, each .35
 $\frac{1}{2}$ lb. Roll. $1\frac{1}{2}$ in. wide, each .50

Original from

UNIVERSITY OF MICHIGAN

COPPER TERMINALS



No. 3

For large Secondary Cable
Each Doz. 100 1000
Price \$0.05 \$0.50 \$2.50 \$15.00

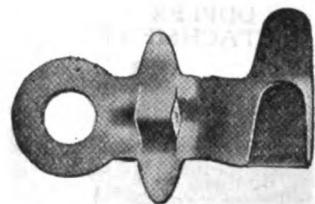
Copper Terminal



No. 1

For Primary Cables.
Each Doz. 100 1000
Price \$0.04 \$0.35 \$1.75 \$12.00

RAJAH TERMINAL.



No. 2

For med'm Secondary Cable
Each Doz. 100 1000
Price \$0.05 \$0.40 \$2.00 \$13.00

BOLTON'S
"SNAP-ON"
SPARK-PLUG
TERMINAL

No. 0. For Lamp Cord.
Each Doz. 100 1000
Price \$0.03 \$0.35 \$1.50 \$10.00

Each Doz. 100
Price \$0.10 \$1.08 \$8.00

Herz Terminal.



"Disconnected in one second."

Each Doz. 100
Price \$0.15 \$1.50 \$10.00

Copper Gaskets, Asbestos Filled.

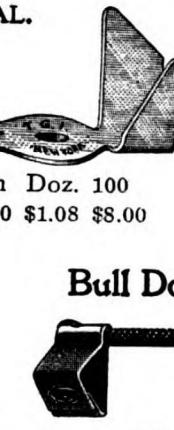


	Each	Doz.	100	1000
1 $\frac{5}{8}$ inch	\$0.10	\$1.08	\$8.00	\$60.00
1 $\frac{3}{4}$ inch	0.15	1.68	12.00	100.00
1 $\frac{1}{8}$ inch	0.18	1.90	15.00	130.00
2 inch	0.21	2.40	18.00	160.00
2 $\frac{1}{8}$ inch	0.23	2.60	19.00	170.00
2 $\frac{1}{4}$ inch	0.26	3.00	24.00	230.00
2 $\frac{3}{8}$ inch	0.29	3.25	26.00	240.00
2 $\frac{1}{2}$ inch	0.32	3.60	28.00	260.00

Spark Plug Gaskets.



	Each.	Doz.	100
For Porcelains	\$0.05	\$0.45	\$3.00
Metric size	.05	.45	3.00
1/2 inch size	.05	.45	3.00
Autocar size	.05	.50	3.75



Bull Dog Battery Connector.



"Grips like a Bull Dog."

Each Doz. 100 1000
Price \$0.07 \$0.75 \$5.50 \$45.00

Battery Connector.

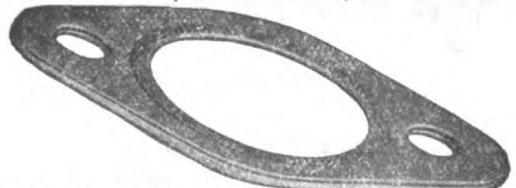


Each Doz. 100 1000
Price \$0.05 \$0.40 \$2.00 15.00

Bolton's "Snap-on" Battery Connection



Each Doz. 100 1000
Price \$0.07 \$0.75 \$5.00 \$35.00

Exhaust Pipe Gaskets
(Asbestos Filled.)

	Each	Doz.	100
1 inch I. P. size	\$0.30	\$3.00	\$20.00
1 $\frac{1}{4}$ inch I. P. size	.35	3.60	25.00
1 $\frac{1}{2}$ inch I. P. size	.45	4.80	35.00
2 inch I. P. size	.50	5.40	40.00

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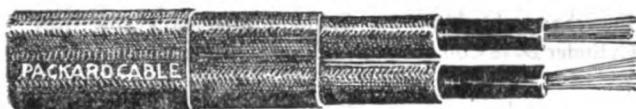
PACKARD ENAMELED CABLE



Packard Secondary Cable



Packard Primary Cable



Packard 2 Strand Primary Cable



Packard 4 Strand Primary Cable

Reputation is back of every Packard product; this name to the careful discriminating buyer means quality; see that your boat or automobile is equipped with Packard Cable; every foot is tested electrically and mechanically by their own patented process. Heat, grease, oil and water proof.

How can any manufacturer or owner of Gas Engines, Automobiles or Motor Boats afford to literally court trouble by using an inferior grade of cable when it costs but very little more to have the best; these cables are as near right to begin with as they can be made, and will stay more nearly perfect as long as they are used.

	Per foot
Price, Packard Secondary.....	\$0.25
Price, Packard Primary.....	.12
Price, Packard 2 Strand .....	.25
Price, Packard 4 Strand .....	.50

PIRELLI CABLES

Pirelli high and low tension cables are made by the oldest cable factory in the world, used by nearly all leading automobile manufacturers abroad; it is made of several layers of Para gum of different colors, and owing to construction, is very flexible; it also has a hard transparent finish which will not crack but makes the cable impervious to oil, gasoline, water and heat.

Price, Secondary, per foot..... \$0.25
Price, Primary, per foot..... .12

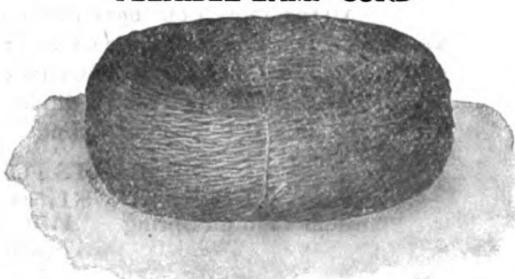


Pirelli Secondary Cable



Pirelli Primary Cable

FLEXIBLE LAMP CORD

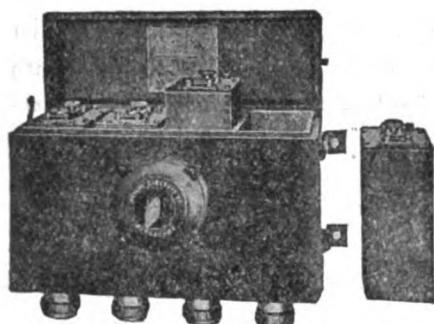


The conductors are composed of fine copper wire, wound with cotton, insulated with a light coating of seamless rubber, and braided with polished cotton. Price, per foot, double..... \$0.10

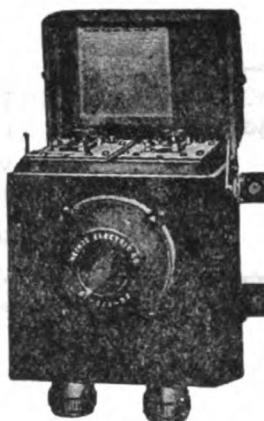
Fiat Secondary Cable, per foot..... \$0.20
Fiat Primary Cable, per foot..... .12

Mercedese Secondary Cable, per foot... \$0.15
Mercedese Primary Cable, per foot..... .07

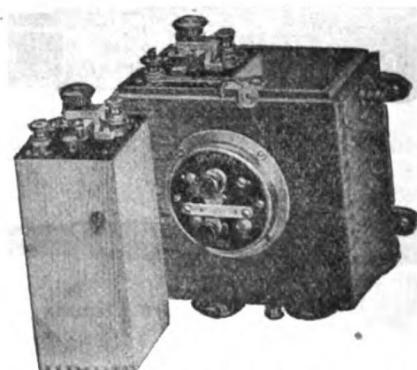
SPARK COILS



Heinze Interchangeable Unit
Four Cylinder Dash Coil



Heinze Interchangeable Unit
Two Cylinder Dash Coil



Splitdorf Interchangeable Unit
Two Cylinder Dash Coil



Heinze
Double Marine Coil



Heinze
Single Marine Coil



Splitdorf
Motor Cycle Coil

Heinze Automobile and Motor Boat Spark Coils

In manufacturing Spark Coils it has been the Heinze Electric Co's aim to produce the very best grade of apparatus regardless of cost; they are constructed upon the unit system, viz: each coil is individual and in no way connected with its neighbor; they are placed in cases, one unit for each cylinder of your engine; the units are interchangeable, self-contained, and the disconnecting of wires and the use of tools are unnecessary in removing a unit; simply lift the unit from the case; all connections are likewise made when the unit is placed in the case; with this combination it is possible to carry an extra unit, and in case of trouble the defective unit can be replaced in ten seconds and without stopping your engine.

No. B 40. Dash Board Coil for Single Cylinder Engine.....	Price \$12.00
No. B 24. Dash Board Coil for Single Cylinder Cadillac.....	Price 12.00
No. B 36. Dash Board Coil for Double Cylinder Engine.....	Price 18.00
No. B 35. Dash Board Coil for Four Cylinder Engine.....	Price 36.00
No. B 34. Dash Board Coil for Six Cylinder Engine.....	Price 52.00
No. B 57. Interchangeable Unit.....	Price 6.00
All the above Coils have Interchangeable Units and Rosette Switches.	
No. B 18. Box Coil for Single Cylinder Engine	Price 7.00
No. B 17. Box Coil for Double Cylinder Engine	Price 14.00
No. B 30. Box Coil for Three Cylinder Engine.....	Price 21.00
No. B 25. Box Coil for Four Cylinder Engine	Price 28.00

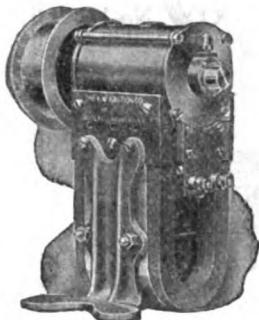
PARTS FOR HEINZE COILS

Platinum Contact Screw	\$1.50	Rosette Switch Plug	\$0.25
Platinum Vibrator Spring	1.50	Hard Rubber Screw Cup	.20

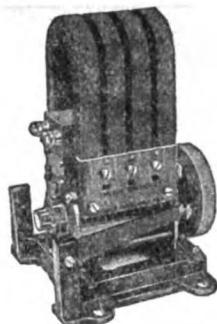
Splitdorf Coils

One Cylinder Dash Coil.....	Price \$15.00	One Cylinder Box Coil	Price \$10.00
Two " " "	30.00	Two " " "	20.00
Four " " "	60.00	Three " " "	30.00
Six " " "	90.00	Four " " "	40.00
Interchangeable Unit			Short or Long Motor Cycle Coil" 9.00

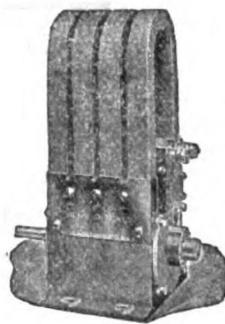
K. W. MAGNETOS



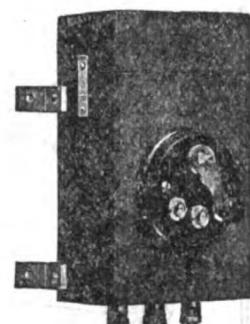
"Model F"



"Model B"



"Model A. & A. M."



"Master Vibrator Coil"

Model F. Shows how easy it is to mount the K. W. Magneto on Ford models N, R, & S, cars, by simply bolting to the frame. They start the engine easily on the first quarter turn of the fly-wheel, and run it faster and better than any battery with more power and less fuel, because it gives a hotter spark than any battery. This same model magneto can be used on any car where there is room enough to put it on. It gives spark enough to start any engine that can be turned over by hand. Bracket is same as shown in cut and it can be easily mounted by bolting to frame of car or attaching to small bracket made so that it will be in line with fly-wheel.

Price \$35.00

Model B. Friction drive wheel is made of first-class sole leather and will not slip. Will start the engine easily without batteries; mount the magneto so that the flat spring presses the friction wheel of the magneto securely against the fly-wheel of the engine; it will run equally well in either direction.

Price \$35.00

Model A. Belt or gear drive; will start the engine easily without batteries. The oil cups can be mounted for running in an inverted position, if so desired.

Price \$35.00

Model A.-M. Make and Brake Spark, must be gear-driven at engine speed and no coil is needed. Starts any engine up to 30 horse power easily without batteries.

Price \$35.00

MASTER VIBRATOR OR SYNCHRONIZER (One Vibrator for all Cylinders)

Increases the power of a multiple cylinder engine by having only one fast vibrator and one powerful condenser for all cylinders, thus giving the same ignition in each cylinder, and a smoother running engine with no loss of power by unequal firing; will operate in connection with either batteries, or the K-W. magneto with any make of coil by short circuiting the vibrators and letting the K-W. Master Vibrator work for all cylinders, thus giving more power.

Price \$15.00

For full particulars of K. W. Magnetos, ask for Bulletin Number 8.

SPARK COIL PARTS



No. 1.



No. 2.



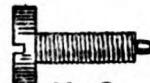
No. 3.



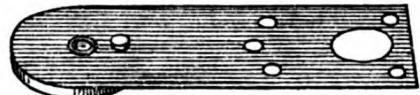
No. 11.



No. 10.



No. 9.



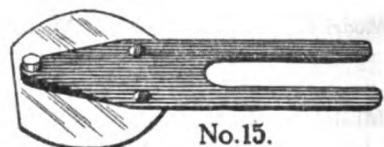
No. 12.



No. 13.



No. 14.



No. 15.



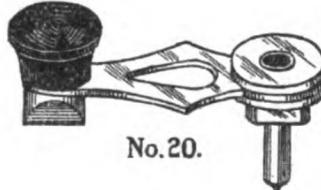
No. 17.



No. 18.



No. 19.



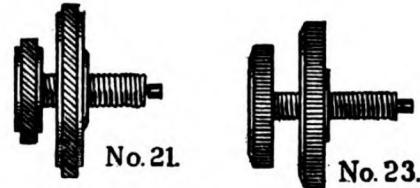
No. 20.



No. 16.



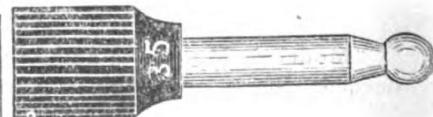
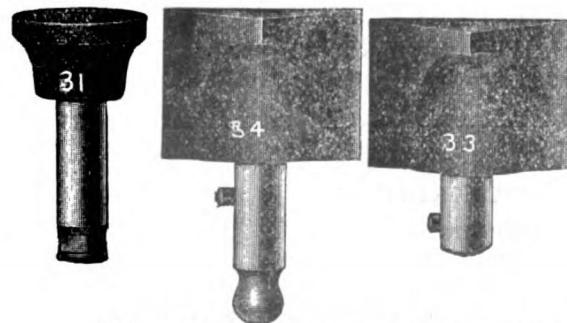
No. 22.



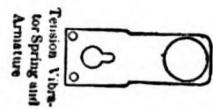
No. 21.



No. 23.



Connecticut Switch Plug, Price, \$0.15



Splitdorf Tension Vibrator. Price \$1.00

These Coil Parts are made from the very best Brass, Copper and Steel, all the platinum points are the purest and best possible metal, and are all guaranteed to fit and work.

Price

No. 1 Contact Screw for Thor or Indian Motor Cycle.	\$0.60	No. 12 Vibrator Spring Conn.	\$1.00	No. 20 Switch Lever Pittsf'd	\$0.35
" 2 Contact Screw 1905 Splitdorf Coil	1.00	" 13 Switch Lever Conn...	.15	" 21 Adj. Screw La Coste..	1.00
" 3 Splitdorf Bogart Spring 1.00		" 14 Contact Screw Heinze 1.50		" 22 Vib'r Spring La Coste 1.00	
" 9 " Contact Screw.. 1.00		" 15 Vib'r Spring '07 Heinze 1.50		" 23 Cont'l Screw Auto Coil 1.00	
" 10 " Bogart Hammer. 15		" 16 Vib'r Spring '08 Heinze 1.50		" 31 Old Splitd'r Switch Plg .10	
" 11 Contact Screw Connec't 1.00		" 17 Plat'm Seat '09 Heinze 1.00		" 32 New " " ".25	
		" 18 Vib'r Spring Pittsfield 1.50		" 33 Heinze 1908-9 " " ".25	
		" 19 Contract Screw Pitts.. 1.00		" 34 Heinze 1906-7 " " ".25	

STORAGE BATTERIES



Michigan

The Michigan Storage Battery is so well known that a description of it is not necessary.

No.	Volts	Ampere Hours	Price
A 1	4	40	\$12.50
A 2	6	40	17.50
A 3	8	40	22.50
B 1	4	60	15.00
B 2	6	60	21.00
B 3	8	60	27.00
C 1	4	80	19.00
C 2	6	80	26.00
C 3	8	80	32.00

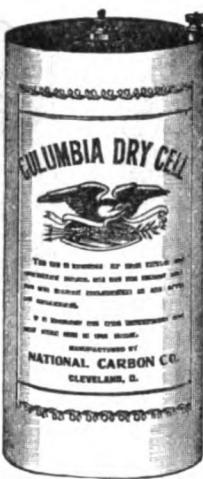


Witherbee

No.	Volts	Ampere Hours	Price
44	4	40	\$12.00
46	6	40	18.00
48	8	40	24.00
56	6	50	22.00
64	4	60	18.00
66	6	60	25.00
68	8	60	30.00
86	6	80	30.00

Witherbee "Jr."

No.	Volts	Ampere Hours	Price
43	6	40	\$15.00
68	6	60	18.00



These batteries combine high amperage and voltage especially the Red Seal which has forged itself to the front so rapidly the past season, due to its wonderful recuperative properties.

Red Seals No. 6.....Price \$0.25
Columbia No. 6.....Price 25

WITHERBEE STORAGE BATTERY

Recharging Outfits



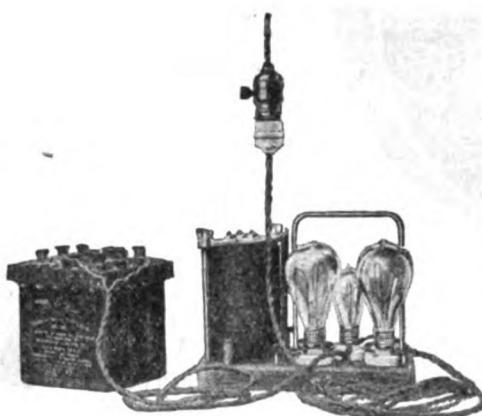
For Direct Current only
For 108 to 125 volt or 220 volt
lighting circuit

This outfit enables you to recharge your batteries from the ordinary lamp socket in your home or office. Simply connect with your battery and turn on switch. When ordering, state voltage of your lighting circuit, the number of cells or voltage of your battery, and the ampere hour capacity of your battery.

Charging in Amperes

No.	Max.	Min.	For Cells of	110 V.	220 V.
1	3	1	40 amp. hours	\$6.00	\$7.50
2	4	2	50 "	6.75	8.00
3	5	2	60 "	7.75	9.25
4	6	3	80 "	8.75	10.00

Complete with Hydrometer, Jar and Syringe.



For Direct or Alternating Current

With this outfit you can charge a storage battery from any electric light socket, and it operates equally well on alternating or direct current.

The pressed steel box supplied with the charger enables the automobilist to carry it on the running board when entour.

Charger complete for 110 volts \$25.00
Extra for 220 volt circuit lamps 2.50

New packages of recharging powders,
6 for.....50c.

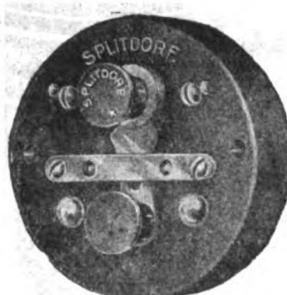
ACID HYDROMETER



For testing the strength or specific gravity of the acid when the battery is fully charged.

Hydrometer, jar and syringe complete, \$1.50
Hydrometer only. 1.00
Jar only..... .30
Syringe only..... .65

SPLITDORF SWITCH



(Two Throw)

Will operate on one or two sets of batteries independently of batteries or dynamo.

Price \$1.50
Extra Plug20

HEINZE SWITCH



For two sets of batteries independently.

Price \$1.75
Extra Plug25

SPLITDORF LOCK SWITCH

(Two Throw)



"Yale Lock."

Thieves will not bother your automobile if equipped with a Yale Lock Switch. You cannot afford to be without one.

Price \$5.00

PEERLESS SWITCH

(Two Throw)



With the Peerless you can switch from one to the other set of batteries, or use all batteries in series if you wish.

Price \$1.25
Extension Lever25

THE NEW PITTSFIELD KICK-OFF SWITCH

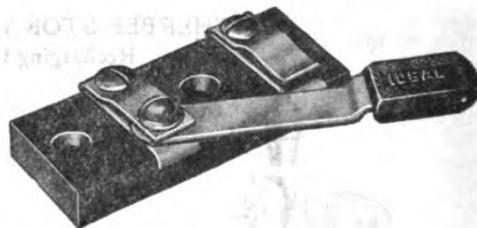


Makes the best contact, is the most reliable, best designed and strongest combination switch on the market. It cannot be burned out by short-circuit whether the safety plug is in or out. This Switch is designed for use with Magneto and Battery, and for two sets of battery.

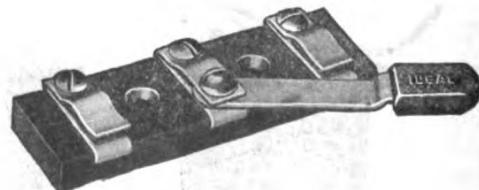
To start Switch, push in safety plug and turn one-quarter turn; to remove plug, push in and turn one-quarter turn, when it will spring out.

Price \$2.00
Price extra Key25

IDEAL SIDE ACTING SWITCHES



No. 412



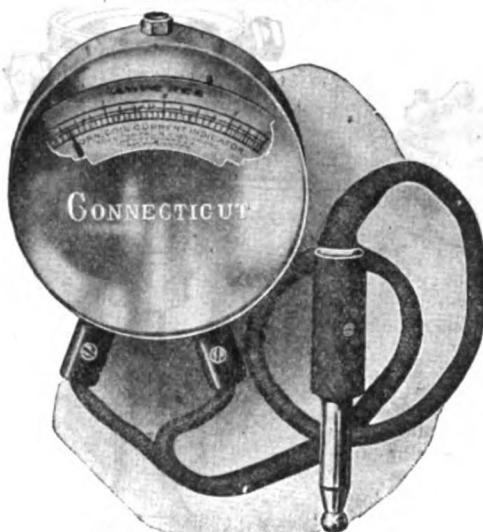
No. 422

These switches may be mounted with blade hanging down, and this is the proper position, only possible with the Ideal Switch, which has the Ideal self locking contacts.

These side acting switches are an entirely new line, and they have the Ideal spring contacts in a new form, making them very compact for use on Motor Boats, Automobiles and Shop Engines.

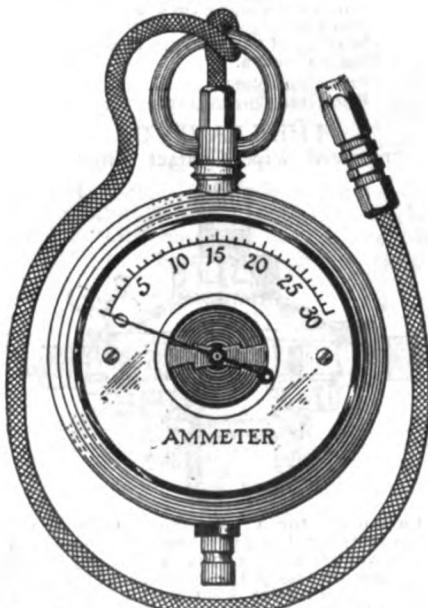
No. 412 Price \$0.35
No. 422 Price50

CONNECTICUT COIL INDICATOR



Most Spark Coils are adjusted to consume more current than is actually needed. A coil will fire a charge perfectly on a given amount of current, and all over this amount is more than a loss, as the greater the amount of current passing through your coil the quicker your battery becomes exhausted, and the more your sparking and timer contacts burn, causing wear, misfiring, and improper timing. With a Connecticut Coil Indicator you can adjust all units to draw an even amount of current. For Connecticut Spark Coil.....Price \$5.50 With 2 cords, for any make of Coil. Price 5.00

MONNIER AMPERE METER



This Dry Battery Tester is made expressly for us by one of the best manufacturers in this country; it is correct and will give the very best of satisfaction. Price 0.30 amperes.....\$3.50

CONNECTICUT VOLT- AMPERE METER



It is just as necessary for an automobilist to know the exact condition of his batteries as it is to know the quantity of gasoline he may have in his tank; this instrument is designed to show the exact condition of your batteries, either storage or dry cells.

Price 0.30 amperes 0.6 volts \$5.00

ROBERTS VOLT-AMPERE METER



Don't forget that the successful working of your car depends greatly upon the condition of your batteries and any battery showing under six amperes should be replaced with a new one, with this accurate instrument. You know at a glance the true condition of your batteries.

Price 0.30 amperes 0.6 or 12 volts.....\$6.00

CONGRESS BATTERY TESTER

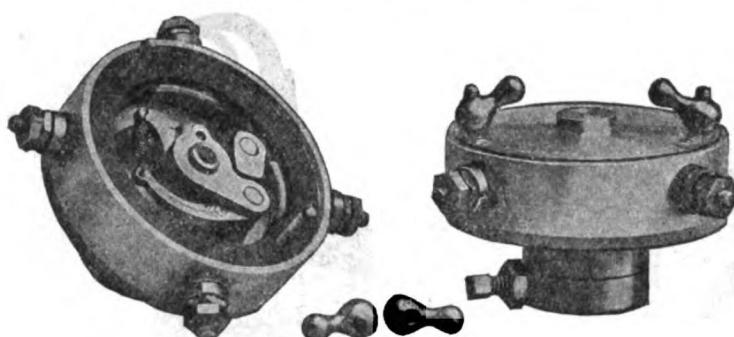


For testing dry batteries; if battery is less than four amperes the lamp will not light.

Price \$1.00

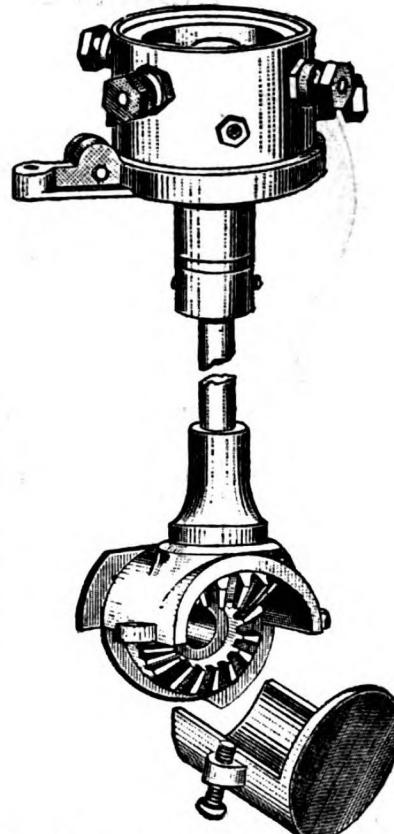
Price extra lamp..... 0.50

MILWAUKEE WIPE CONTACT TIMER

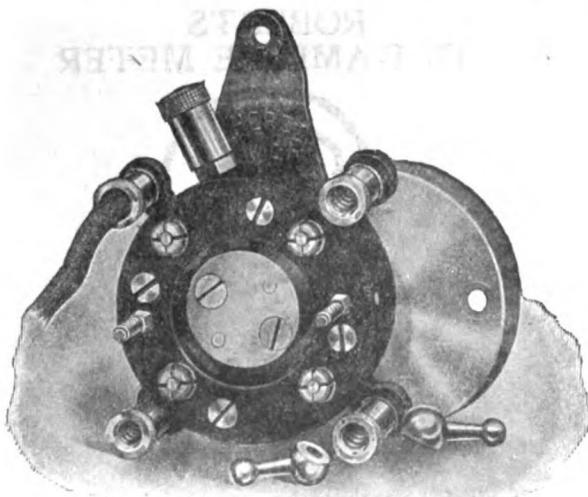


This Timer is of the self adjustable roller type, is made dust proof, and is all-over lathe finished with the greatest possible care; the main case and cover are cast in nickel aluminum, the water proof fibre ring is smoothly finished and pressed into the case and fastened in place by five flat headed screws.

For One Cylinder	Price \$7.00
For Two Cylinder.....	" 7.50
For Three Cylinder	" 7.75
For Four Cylinder.....	" 8.00
For Six Cylinder.....	" 8.50

VERTICAL TIMER
for Ford Cars

HERZ SNAP-OFF CONTACT TIMER



“Contact is produced between a hardened square-headed tool steel plunger sliding in a square hole in the interior of an eccentric bronze piece revolving in the center of the instrument; the contacts are made out of the finest Sheffield tool steel; it is ball bearing and wear at any time can be taken up by simply turning adjusting cone to right.

For One Cylinder.....	Price \$ 9.00
For Two Cylinder.....	" 10.00
For Four Cylinder.....	" 12.00
For Six Cylinder.....	" 14.00

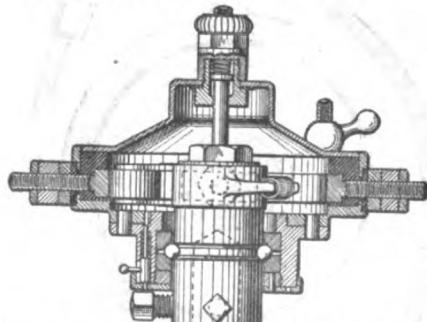
TIMER PLUNGERS



Suitable for Splitdorf and Herz Timers.
Price, each..... \$0.50

Suitable for Ford cars Models "N" "R" and "S," as will be seen it comprises a pair of bevel gears cut from a steel bar, a bronze casing to enclose same, a vertical shaft on the top of which is a four-cylinder Sterling Double Contact Timer. To apply simply remove present cam shaft bearing and replace with gear box, as it acts as the front bearing of the cam shaft as well as a bearing for gears.

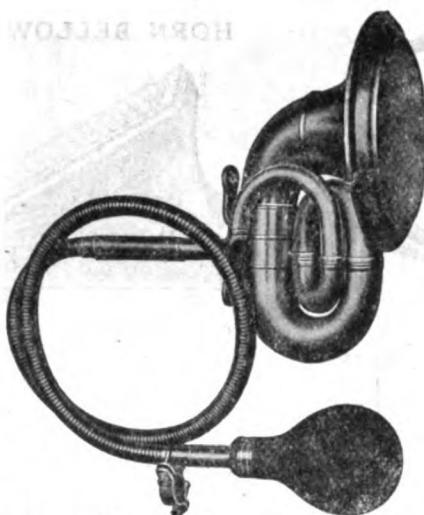
Price complete..... \$12.00
Price less Commutator..... 9.50

THE LEAVITT
Improved Wipe Contact Timer

To meet a demand for a wipe contact timer we have improved upon the well-known Lacoste Timer by adding a supplementary ground terminal and an adjustable ball-bearing in place of the plain bearing. This eliminates the two principal faults of this timer, i. e., poor ground and wobbling after running a short time, both of which will cause skipping when running at high speed. The above faults are usually ascribed to the plugs, coils or carburetor.

For One Cylinder.....	Price \$7.00
For Two Cylinder.....	" 7.50
For Three Cylinder.....	" 8.00
For Four Cylinder.....	" 8.50
For Six Cylinder.....	" 9.50

NONPAREIL HORNS



No. 60 8 in. bell, very deep tone. Price.... \$12.00
 No. 945 7 in. bell, deep tone " 8.00
 No. 940 6½ in. bell, deep tone " 7.00
 No. 44 7 in. oval bell, deep tone " 7.00



No. 540. 6½ inch bell. Price..... \$6.00
 No. 12. 6¼ in. bell. Price..... 6.50



No. 70. 7½ inch oval bell. While this horn has
 only recently been brought out, it will prove to be
 one of the season's most popular styles; reed is
 placed in center of tube which gives it a very deep,
 rich tone. —
 Price \$8.00



No. 74. Question Horn, very deep tone; it is
 the very latest type of horn, the reed is located in
 the center of the extension tube, producing a full,
 deep tone.
 Price \$6.00



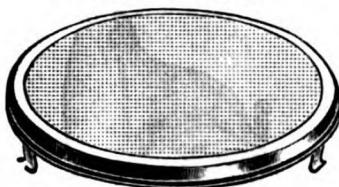
ROYAL SIREN HORNS.

This is the latest, improved mechanical horn, which we supply complete with all the necessary fittings. Its range is from a low humming sound, up through the clear, musical middle tones, to a piercing shriek, according to how hard the foot-button is pressed. Has large bell, the latest French design.

The leather friction pulley is pressed down on the top of the fly-wheel, whereupon it revolves, and by means of the encased flexible shaft, whisks the mechanism in the base of the horn itself.

There is an extraordinary demand for these Royal Sirens for large cars.
 Complete Price \$15.00

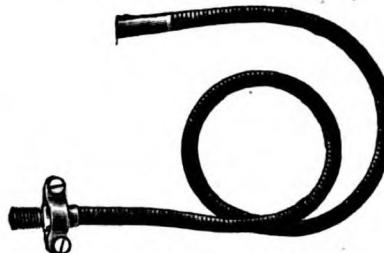
HORN SCREENS



	Price
For 4½ or 5 in. horns.....	\$0.75
For 6 in. horns.....	.85
For 6½ or 7 in. horns..	.95
For 7½ in. horns.....	1.05
For 8 in. horns.....	1.15

FLEXIBLE BRASS TUBES

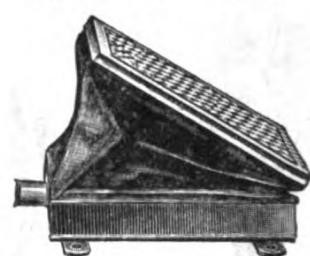
For Horns



"State size and thread."

	Price
40 inches long.....	\$1.25
50 inches long.....	1.50
60 inches long.....	1.75

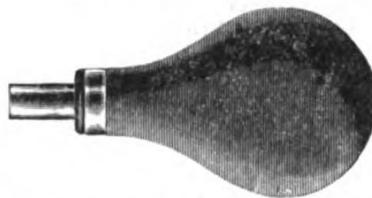
HORN BELLOW



In ordering state size and thread.

Price \$2.50

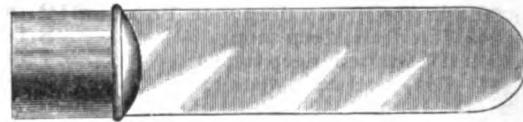
HORN BULBS



We guarantee these bulbs the best in the market.

	Price
5 25/8 in. 37/8 in.....	\$0.75
6 3 in. 47/8 in.....	.90
8 33/8 in. 53/8 in.....	1.00
11 35/8 in. 53/4 in.....	1.25
12 37/8 in. 61/4 in.....	1.50
15 41/8 in. 61/4 in.....	2.00

HORN REEDS



"Adjustable and Stationary."

All sizes carried in stock. When ordering state size Reed is to fit into.

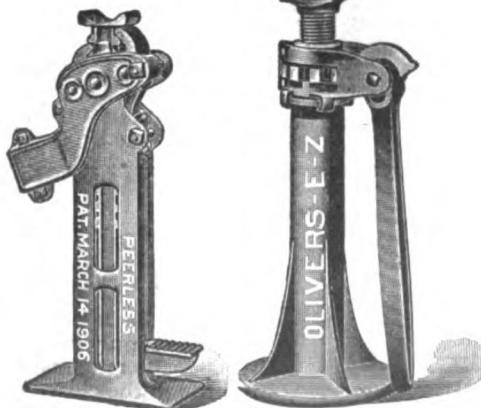
	Price
American Reeds under 2 inches.....	\$0.40
American Reeds, 2 inches and over.....	.50
French imported Reeds.....	.75

PEERLESS AUTOMOBILE AND TRUCK JACKS



No. 50 and 51

No. 50 for cars of 2 tons
 No. 51 for cars of 2 tons
 No. 52 for cars of 2 tons
 No. 53 for cars of 2 tons
 No. 35 for cars of 10 tons



Nos. 52 and 53

Height.	Rise	Weight	Price
10 in.	7 in.	4½ lbs.	\$2.50
12 in.	9 in.	5 lbs.	2.50
11 in.	6 in.	5 lbs.	3.00
13 in.	8 in.	6 lbs	3.00
13 in.	12 in.	12 lbs.	5.00

No. 35

STANDARD JACK



No. 1

Lifts only on down stroke, thumb-screw reverses the action; quick acting and always ready, neat wood handle furnished with each jack.
 Price \$5.00
 Baby Standard 10½ in. high, 16 in. raised; weight, 6 lbs.; capacity, 1,500 lbs.
 Price \$3.00

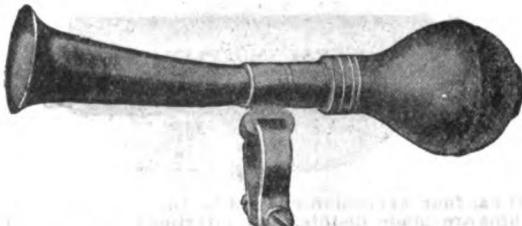
Motorcycle Horn

"Very Deep Tone."

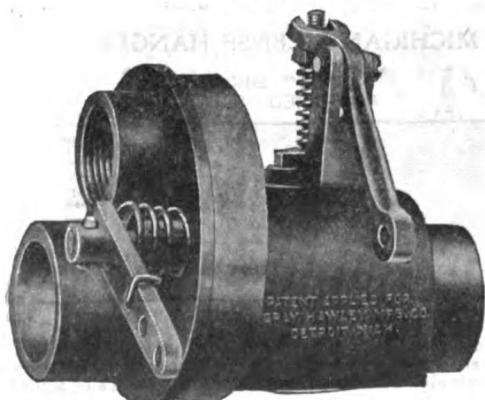
No. 710. Diameter of Bell, 3 1/4 in....Price \$3.00

Rival "Bis" Horn

No. 123. Diameter of Bell, 3 1/2 in.Price \$2.00
No. 127. Diameter of Bell, 4 1/2 in....Price 2.50
No. 130. Diameter of Bell, 5 in.Price 2.75
No. 133. Diameter of Bell, 5 1/4 in.Price 3.50

Horns for Toy Automobiles

No. S15. 8 1/4 in. long.....Price \$0.50
No. S16. 7 1/4 in. longPrice .75

Combination Autochime, cut-out and safety valve

Two valves in one—saves the trouble and expense of fitting two separate valves. Can be operated by combination pedal or two single foot pedals.

Price

For Exhaust Pipes, 2 in. and under .. \$3.50
 For Exhaust Pipes, over 2 inches.... 5.00

Genuine Autochime (2x15 inches)

The Autochime is made with but three parts, and is the most substantial and positive alarm on the market, the deep, low or powerful tones are very pleasing. Valve furnished is strong, simple and self-cleaning. When ordering state make of car, model, year made, size of exhaust pipe, and if steel tubing or iron pipe.

Price

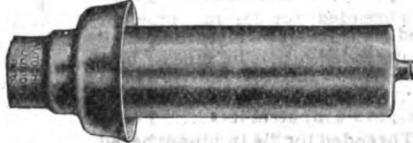
For Exhaust Pipes, 2 in. and under\$10.00
 For Exhaust Pipes, over 2 inches 11.50

Above prices include Autochime, Valve, and Foot Pedal.

Autochime only	Price	\$7.00
Exhaust Valve, under 2 inches	Price	2.50
Exhaust Valve, over 2 inches	Price	4.00
Foot Pedal	Price	.75

Autochime Junior

(2x9 inches)



Meets the demand for a less expensive Autochime for the small and medium size cars, also just the thing for launches, etc.

For Exhaust Pipes, 2 in. and under..Price \$8.00

For Exhaust Pipes over 2 inches...Price 9.50

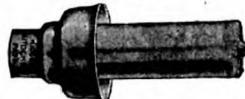
Above prices include Autochime, Valve

and Foot Pedal.

Autochime onlyPrice 5.00

Autochime Midget

(1 1/4x5 inches)



Is the deepest toned, and most powerful chime of its size, suitable for Motor Cycles, and has no equal for a compressed air or hand pump whistle for launch.

Price\$2.50

Autochime Exhaust Valve**Foot Pedal**

Made from best grade red brass highly polished, just the thing for operating cut-out valves.

Price

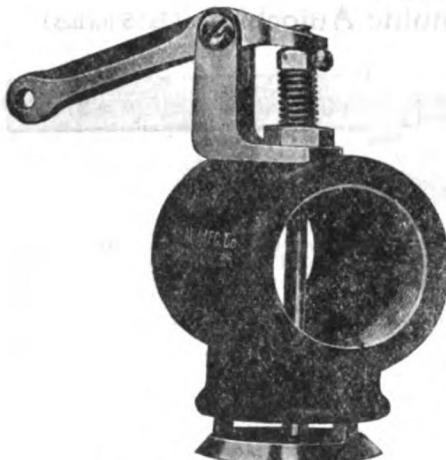
Is strong, simple, and positive in action, will not stick, and does not reduce the size of exhaust passage. A part or entire exhaust may be used at will at any speed of the engine.

Price.

For 2 in. and under\$2.50

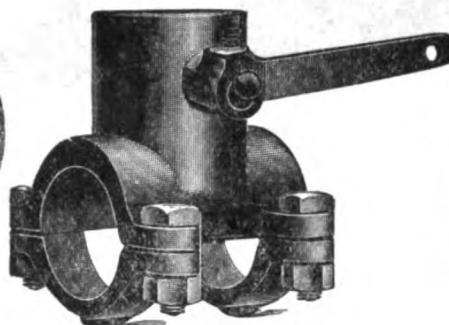
For over 2 in. 4.00

MUFFLER CUT-OUT VALVES

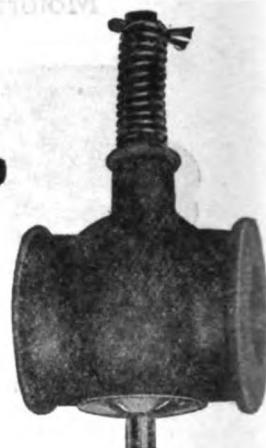


"Gray Hawley's"

It is adjusted so the valve remains closed under normal conditions, but will open whenever a charge explodes in the muffler, thus saving the muffler.
No. 0 Threaded for 1 in. pipe or bored for $1\frac{1}{4}$ to $1\frac{3}{8}$ in. steel inc.... \$1.25
No. 1 Threaded for $1\frac{1}{4}$ in. pipe or bored for $1\frac{3}{8}$ to $1\frac{3}{4}$ in. steel inc.... \$1.50
No. 2 Threaded for $1\frac{1}{4}$ in. pipe or bored for $1\frac{3}{8}$ to 2 in. steel inc.... \$1.75
No. 3 Threaded for 2 in. pipe or bored for $2\frac{1}{4}$ to $2\frac{3}{4}$ in. steel inc.... \$2.00
No. 4 Threaded for $2\frac{1}{4}$ in. pipe or bored for 3 in. steel inc..... \$2.50



"Style C"



"Style A"

Is made of malleable iron and is exceptionally practical, as it does not necessitate the removal of the exhaust pipe to apply; all that is necessary is to cut a V-shaped hole in the exhaust pipe with a hack saw, and clamp the cut-out on and connect to the foot board.

No. 2 For $1\frac{1}{4}$ in. iron pipe size or $1\frac{3}{8}$ in. tubing..... Price \$2.75
No. 3 For $1\frac{1}{4}$ in. iron pipe size or 2 in. tubing..... Price \$3.00

These valves are efficient, durable and reliable.

1 in. pipe size, price \$1.50
 $1\frac{1}{4}$ in. pipe size, price 1.50
 $1\frac{1}{4}$ in. pipe size, price 1.50

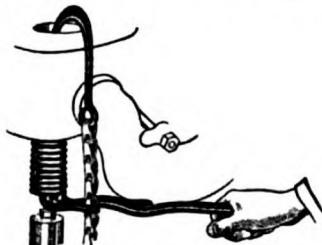
GRAY AUTOMOBILE MUFFLER



It has four expansion chambers, the inner and outer drums are made double, and interlined with asbestos. The outer openings are so arranged that the exhaust forms its own cushion and no baffle plates or tortuous passages are necessary.

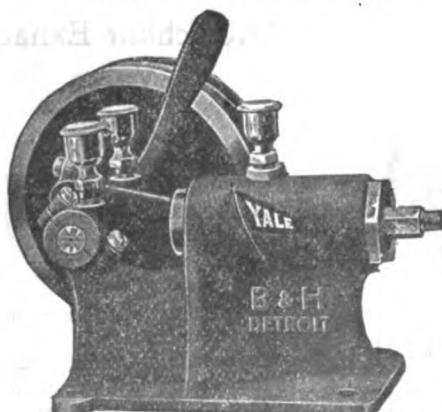
	Without Cut-out	With Cut-out
$7\frac{1}{4}$ x 14 in.....	\$4.25	\$5.50
$7\frac{1}{4}$ x 20 in.....	4.75	6.00
$7\frac{1}{4}$ x 26 in.....	5.25	6.50
$7\frac{1}{4}$ x 32 in.....	6.25	7.50

FLEXIBLE VALVE REMOVER



The chain allows quick operation around the fittings; valves replaced as well as removed; it should be one of the accessories of your tool kit..... Price \$1.50

YALE AIR COMPRESSOR

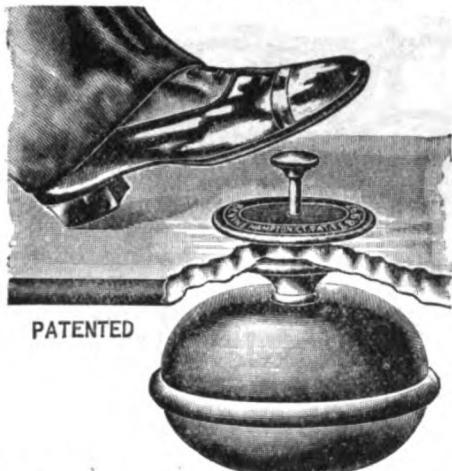


We have considerable to tell you of the Yale Air Compressor, and as space is limited, we ask you to write for booklet describing same.

MICHIGAN LICENSE HANGER



Something entirely new, made entirely of metal, no tacks, wire or screws used to fasten numbers and letters. Pad is enameled black, numbers and letters are of aluminum, raised.	
Steel Pad complete, any number.....	\$1.50
Patent Leather Pad complete, any number.....	1.50
Steel Pad only.....	.75
Patent Leather Pad only.....	.75
Numbers.....	.15
Letters.....	.10
Michigan monogram.....	.35

Double Chiming Gong

PATENTED

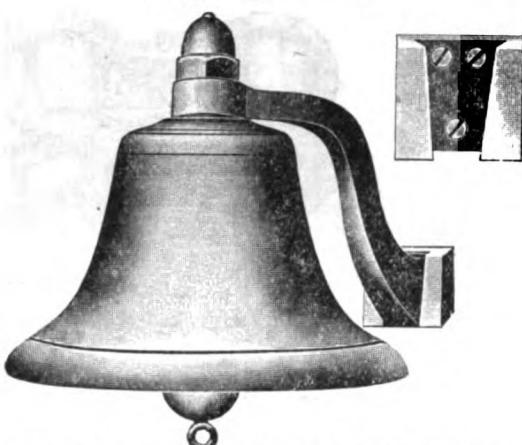
No. 61. Gongs are tuned to accord, and produce a delightful sound; size of Bell, $5\frac{3}{8}$ in. Price \$4.50

Launch Whistle

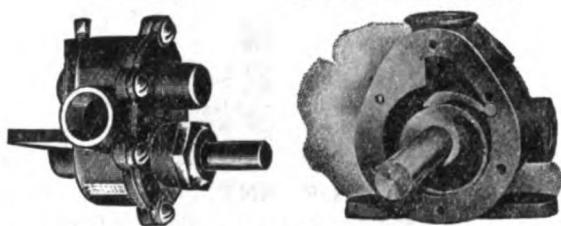
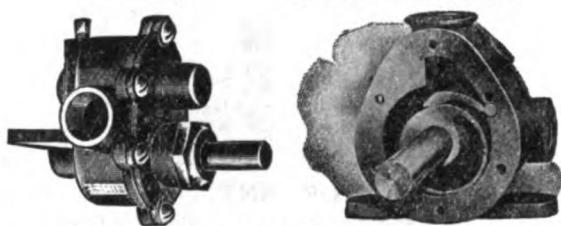
Gives a rich searching alarm.
 12 x 4 in. Price \$5.00
 24 x 4 in. Price 8.00

Hose Clamp

No more bolts and nuts to rust together, or catch to whatever they come into contact with; the surface of clamp is smooth all around.
 $\frac{3}{4}$ in. Price each... \$0.10 Doz. \$0.75
 1 in. Price each.... .10 Doz. .75

Fog Signal Bell

Made from copper and tin bell metal, with detachable socket. 8 inch diameter, highly polished. Price..... \$7.00

Gear Pump.**Upton Rotary Pump.**

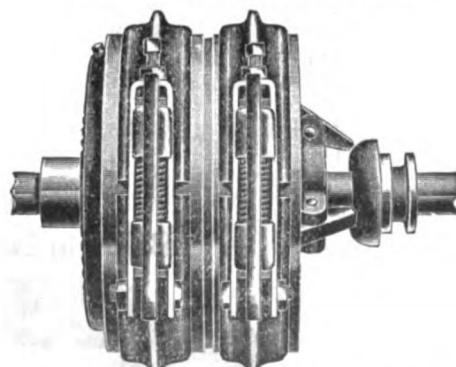
Made of Bronze, and shafts of steel.

$\frac{1}{2}$ in. Pipe Size..... \$7.00
 $\frac{3}{4}$ in. Pipe Size..... 9.00
 Capacity of $\frac{3}{4}$ in., 1 gal. at 100 revolutions per minute.

Capacity of $\frac{3}{4}$ in., $1\frac{3}{4}$ gals. at 100 revolutions per minute.

Upton Rotary Pump.

All brass, and well made, absolutely positive, run even with crank shaft.
 Price, $\frac{1}{2}$ in..... \$7.00

Ball Transmission Gear

Contains all spur gears cut from steel blanks, hardened. Bronze bushed and mounted on hardened steel studs; they are noiseless and will retain oil.

No. 1 will transmit 5 B. H..... Price \$80.00
 No. 2 will transmit 12 B. H Price 100.00
 No. 3 will transmit 24 B. H..... Price 120.00
 No. 4 for heavy cars and trucks..... Price 180.00

DIAMOND AUTOMOBILE CHAINS.

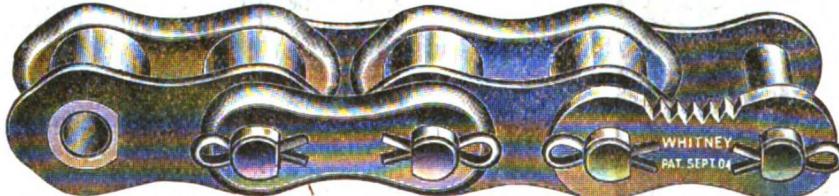


ROLLER TYPE.

Chain No.	Pitch	Width Roller	Diameter Roller	Price Per Foot	Repair Link Each	Roller Link Each
153	3/4"	3/8" or 5/16"	15/16"	\$1.17	\$0.16	\$0.16
153	3/4"	1/2"	15/16"	1.29	16	16
155 H	1"	5/8" or 3/8"	15/16"	1.00	16	18
155 H	1"	5/8"	15/16"	1.17	16	18
156 H	1"	1/2"	5/8"	1.00	16	18
154	1"	5/8"	5/8"	1.17	16	20
151 H	1 1/4"	5/8" or 1/2"	5/8"	1.25	20	24
151 H	1 1/4"	3/4"	5/8"	1.44	20	24
152	1 1/4"	5/8" or 1/2"	3/4"	1.25	20	24
152	1 1/4"	3/4"	3/4"	1.44	20	24
157	1 1/2"	3/4" or 5/8"	3/4"	1.59	27	30
157	1 1/2"	1"	3/4"	1.80	27	30
158	1 1/2"	3/4" or 5/8"	7/8"	1.59	27	30
158	1 1/2"	1"	7/8"	1.80	27	30
159	1 1/4"	1"	1"	2.08	40	40
167	2"	1 1/4"	1 1/8"	2.50	48	48
521	Special for Winton Car			1.17	20	24

IMPORTANT.—In ordering Roller Chains it is necessary to specify complete length of Chain in inches, pitch of chain, also width and diameter of Rollers.

Whitney Roller Chains. Cotter Pin Detachable Type.

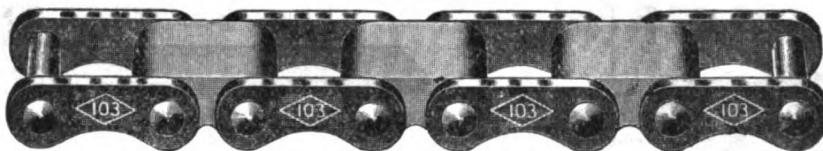


Chain No.	Pitch	Width Roller	Diam. Roller	Price Per Foot	Repair Link Each	Roller Link Each
6	1 in.	1/2 in.	5/8 in.	\$1.00	\$0.14	\$0.12
7	1 in.	5/8 in.	5/8 in.	1.17	16	14
10	1 1/4 in.	1/2 in.	3/4 in.	1.25	19	18
11	1 1/4 in.	5/8 in.	3/4 in.	1.25	19	18
12	1 1/4 in.	3/4 in.	3/4 in.	1.44	22	21
70	1 1/4 in.	1/2 in.	5/8 in.	1.25	19	18
71	1 1/4 in.	5/8 in.	5/8 in.	1.25	19	18
76	1 1/2 in.	3/4 in.	3/4 in.	1.59	24	27
106	1 in.	1/2 in.	9/16 in.	1.00	14	12

Baldwin Detachable Block Chain



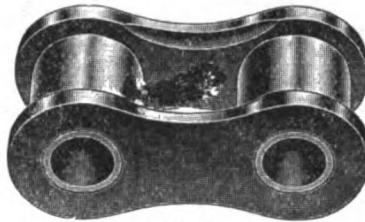
Chain No.	Pitch	Width Block	Price Per Foot	Repair Link	Block
1	1 in.	5/16 in.	\$0.50	\$0.12	\$0.05
2	1 in.	3/8 in.	55	12	05
3	1 in.	1/2 in.	65	15	08
4	1 5/16 in.	1/2 in.	1.00	24	06

INDIANAPOLIS  BLOCK CHAINS

No.	Pitch	Width of Block	Price Per Foot	Connecting Link
105	1 1/2 in.	1/2 in.	\$1.08	\$0.25
103	1 in.	3/8 or 1/2 in.	82	10*
29	1 in.	5/16 in.	75	10*
45	1 in.	1/8-3/16 or 1/4 in.	50	10
33	1 in.	3/16 or 1/4 in.	32	10
9	1 in.	3/16 or 1/4 in.	21	10
61	1 in. Roller	1/8-3/16 or 1/4 in.	65	10*

*Bolts and Nuts are used to connect Chains No. 103, 29 and 61.

ROLLER CHAIN REPAIR PARTS



ROLLER LINK

When ordering give pitch of Chain, also width and diameter of Rollers, also diameter for rivet.



REPAIR LINK

When ordering give pitch of Chain, width of Rollers, and diameter of rivet.

FOR  CHAINS

Pitch	Width	Diam. Roller	Price
3/4 in.	5/16-3/8 or 1/2 in.	15/32 in.	\$0.16
1 in.	3/8 or 1/2 in.	9/16 or 5/8 in.	18
1 in.	5/8 in.	5/8 in.	20
1 1/4 in.	1/2-5/8 or 3/4 in.	5/8 or 3/4 in.	24
1 1/2 in.	5/8-3/4 or 1 in.	3/4 or 7/8 in.	30
1 3/4 in.	1 in.	1 in.	40
2 in.	1 1/4 in.	1 1/8 in.	48
Special for Winton Cars,			

Pitch	Width.	Price
3/4 in.	5/16 or 3/8 in.	\$0.16
1 in.	3/8-1/2 or 5/8 in.	16
1 1/4 in.	1/2-5/8 or 3/4 in.	20
1 1/2 in.	5/8-3/4 or 1 in.	27
1 3/4 in.	1 in.	.40
2 in.	1 1/4 in.	.48
Special for Winton Cars,		20

FOR WHITNEY CHAINS

Pitch	Width	Diam. Roller	Price
1 in.	3/8 or 1/2 in.	5/8 in.	\$0.12
1 in.	5/8 in.	5/8 in.	14
1 1/4 in.	1/2 or 5/8 in.	3/4 in.	18
1 1/4 in.	3/4 in.	3/4 in.	21
1 1/2 in.	5/8 or 3/4 in.	7/8 in.	27
1 1/2 in.	1 in.	7/8 in.	32

FOR WHITNEY CHAINS

Pitch	Width.	Price
1 in.	3/8 or 1/2 in.	\$0.14
1 in.	5/8 in.	16
1 1/4 in.	1/2 or 5/8 in.	19
1 1/4 in.	3/4 in.	22
1 1/2 in.	5/8 or 3/4 in.	24
1 1/2 in.	1 in.	28

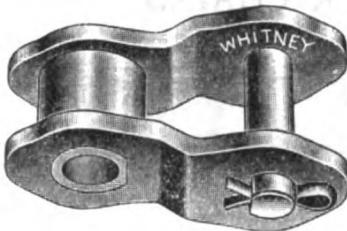
FOR BALDWIN CHAINS

Pitch	Width	Diam. Roller	Price
3/4 in.	5/16 or 3/8 in.	15-32 in.	\$0.18
1 in.	3/8 or 1/2 in.	9/16 or 5/8 in.	21
1 1/4 in.	1/2 or 5/8 in.	5/8 or 3/4 in.	25
1 1/2 in.	5/8 or 3/4 in.	3/4 or 7/8 in.	40
1 3/4 in.	1 in.	1 in.	60
2 in.	1 1/4 in.	1 1/8 in.	80

FOR BALDWIN CHAINS

Pitch	Width.	Price
3/4 in.	5/16 or 3/8 in.	\$0.25
1 in.	3/8 or 1/2 in.	30
1 1/4 in.	1/2 or 5/8 in.	35
1 1/2 in.	5/8 or 3/4 in.	40
1 3/4 in.	1 in.	40
2 in.	1 1/4 in.	1.50

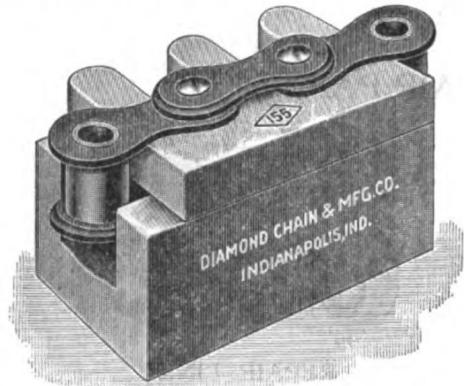
Whitney Offset Link



Is used when it is required to shorten or lengthen a chain only one link.

Price, 1 inch pitch \$0.28
Price, 1 1/4 inch pitch38

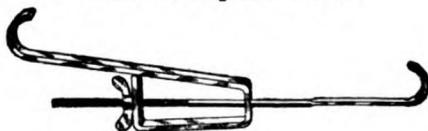
Diamond Chain Repair Tool



A device for detaching the links of riveted roller chains. A quick blow of hammer cuts edge of rivet so that same can again be riveted if desired.

Price for 1 in. 9-16 Diameter Roller \$1.85
Price for 1 in. 5-8 Diameter Roller 1.85
Price for 1 1/4 in. 5-8 Diameter Roller 2.25

Chain Repair Tool



Did you ever have trouble with your chain on the road? You then know what trouble it is to join ends. Price \$0.40

Coiled Wire Belt



Coiled wire belts are strong and durable, they are being used very extensively for driving Fans and Oilers. They will not slip, dry and crack, as does the old style of leather belt.

5-16 inch, 34 or 36 inches long \$1.50
3-8 inch, 34 or 36 inches long 1.50

Whitney Chain Tool



For disassembling Whitney Cotter Pin Chains.
For 1 in. Pitch \$2.50
For 1 1/4 in. Pitch 2.75

SPRING COTTERS



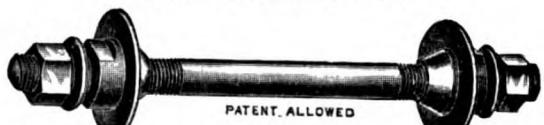
One hundred spring coppers, assorted sizes (only those which are used in auto trade), in a flat tin box. Price, per box \$0.25

Spring Lock Washers



These Lock Washers are made especially for automobile work, are thin, strong and reliable. Box contains a full assortment of sizes from 1/4 inch to 5/8 in. hole, advancing by 1-16 of an inch. Price per box, assorted \$0.50

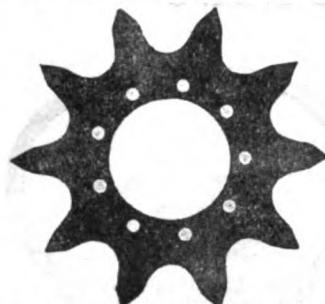
Axle Set for Fans



With either 5-16 or 3-8 inch axle.
Complete set as above \$0.50
Extra Cones, each25
Extra Axle, each15

Original from
UNIVERSITY OF MICHIGAN

AUTO SPROCKETS



Cadillac and Ford Sprockets.
Finished ready to put on.

	8	9	10	11	12 tooth
Cadillac	\$1.50	\$1.75	\$2.00	\$2.00	
Ford	\$2.50	2.75	3.00	3.00	

Blank Auto Sprockets

We can also furnish blank sprockets with 1 inch hole. One inch pitch, $\frac{3}{8}$ or $\frac{1}{2}$ inch wide, for $\frac{9}{16}$ or $\frac{5}{8}$ inch diameter roller.

	9	10	11	12	14 tooth
	\$1.35	\$1.45	\$1.50	\$1.60	\$2.00

Steel Sprocket



No. 68.

Made in one size only, 24 tooth 3-16 in. wide, 1 in. pitch for Block chain, $\frac{5}{8}$ in. hole, center is $3\frac{1}{2}$ in. across. Price \$1.25

No. 66 Steel Sprockets



Drop Forged.

Tooth	For 1 inch pitch Block Chains.			
	3/16 in.	1/4 in.	5/16 in.	3/8 in.
6	\$0.36	\$0.36		
7	20	20	\$0.36	\$0.40
8	22	22	38	42
9	24	24	40	44
10	26	26	42	46
11	28	28	42	48
12	30	30	44	50
14	75	75		
16	75	75		
20	1.00	1.00		

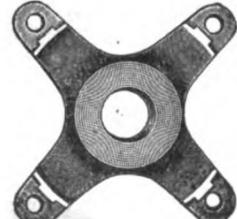
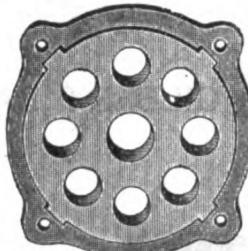
DROP FORGED HUB SPROCKETS



For 1 inch pitch Block Chains

No.	Teeth	1/4 in.	5-16 in.
16	16	\$0.80	\$0.90
17	17	.85	.95
18	18	.90	1.00
19	19	.95	1.10
20	20	1.00	1.20
22	22	1.10	1.30
24	24	1.20	1.40

Detachable Steel Sprockets



Disc Center or Four Arm Center, Nickel Plated $\frac{3}{16}$ or $\frac{1}{4}$ inch.

For 1 inch Pitch Chain.

20 tooth	\$1.25	24 tooth	\$1.45	26 tooth	\$1.55
22 tooth	1.35			28 tooth	1.65

Above are furnished with Nickel Plated Bolts and Nuts.

Price of Extra Discs	.....	Each	\$0.30
Price of Extra Bolts and Nuts	....	Each	10

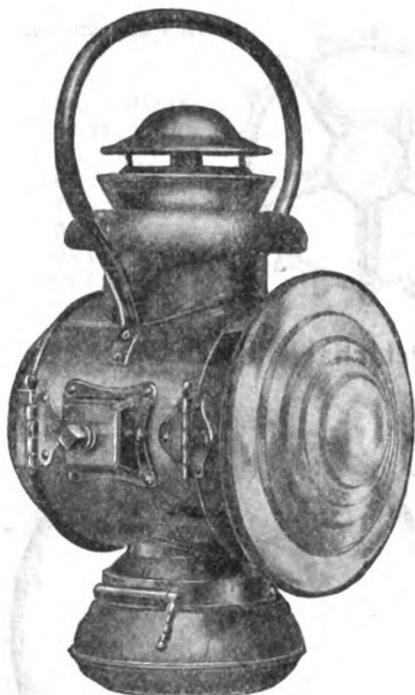
Watch Fob



Nicely Nickel Plated Price \$0.35

Original from
UNIVERSITY OF MICHIGAN

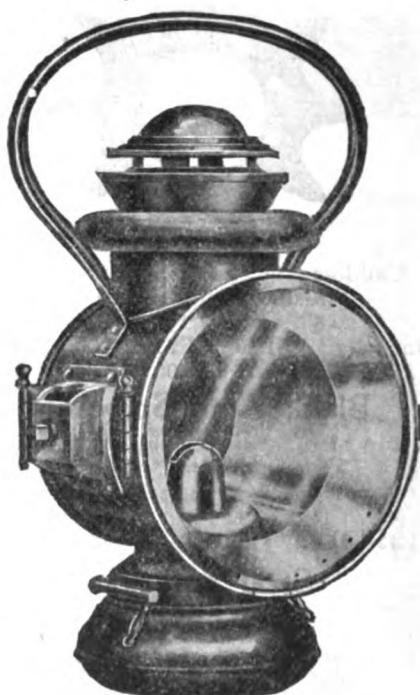
"HAM'S COLD BLAST OIL LAMPS"



"TOURIST."

Ham's Oil Searchlight. The most powerful light producer made; has all the features of Ham's 40 years' experience as an oil lamp manufacturer. The roughest roads or strongest gale will not put it out.

Price, Pair (Touring Cars) \$20.00



"AURORA."

Made on the genuine "Cold Blast" principle, with all the special attractive features of Ham's Lamps.

Price, Pair (Touring Cars) \$16.00

GILBERT LAMP COVERS.



For Gas Headlights.

Made of best quality fleece lined rubber cloth.

For 6 in. Headlights	Each, \$1.50
" 7 " "	" 1.50
" 8 " "	" 1.50
" 9 " "	" 1.75



Made of best quality fleece lined rubber cloth.

No. 1, for small Tail Lamps	Each, \$1.00
No. 2, for large Tail Lamps.....	" 1.15
No. 3, for medium Side Lamps ...	" 1.25
No. 4, for large Side lamps.....	" 1.25

**E. & J.
Side Oil Lamp**



No. 3-A. Expressly made for Runabouts, 4x4x10 $\frac{1}{4}$ inches.
Price, pair \$7.50

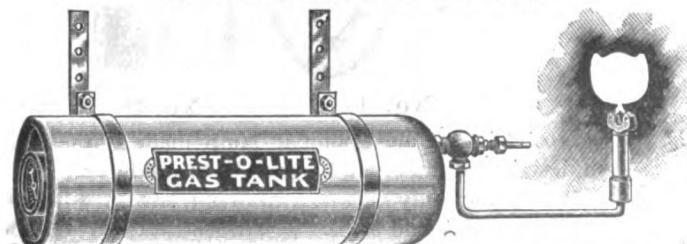
Ham's Tail Lamp



The lamp that will stay lit and give a brilliant white light in the strongest gale of wind, and on the roughest roads; has neat handle so as to use as inspector's lamp.

Price \$7.00
Price, Bracket60

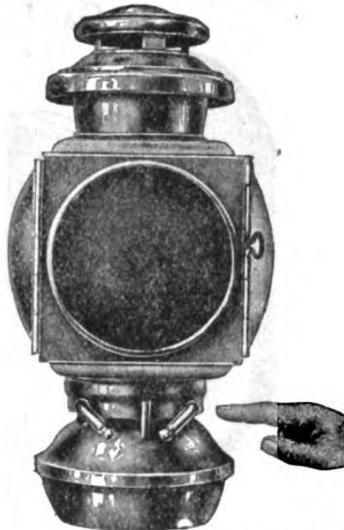
PREST-O-LITE GAS TANK



Contains about 250 lbs. of compressed gas. It's always ready.

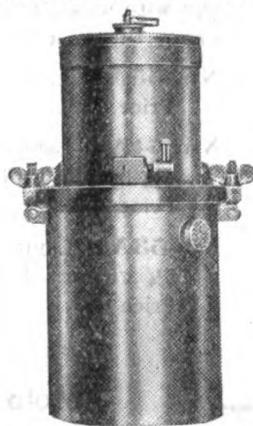
Price, charged Tank with Attaching Brackets \$25.00
Price for Recharged Tank 2.50

E. & J. Tail Lamp



No. 1. Suitable for all size cars; size 4x4x10 in.
Price \$4.30

American Generator



Style E. No seams to unsolder; strong, substantial and very handsome. 15 in. high. 7 in. wide. Carbide basket holds 3 $\frac{1}{2}$ lbs.
Price \$12.00

Style D. Identically the same as Style E excepting smaller, 12 in. high, and holds 1 $\frac{3}{4}$ lbs. Carbide.
Price \$8.00

American Tail Lamp



No. 46, for touring cars, size 4 $\frac{1}{2}$ x6x11 in.
Price \$6.00
No. 46 B, for runabouts, size 4x5x9 in.
Price \$3.00

Oil Signal Lights



Plain Glass, not corrugated.

Port and Starboard oil lights, authorized by Marine Laws. They are strong, beautiful, and strong light producers.

Made of Galvanized Iron.

Price, pair \$4.50

Gas Tank Key

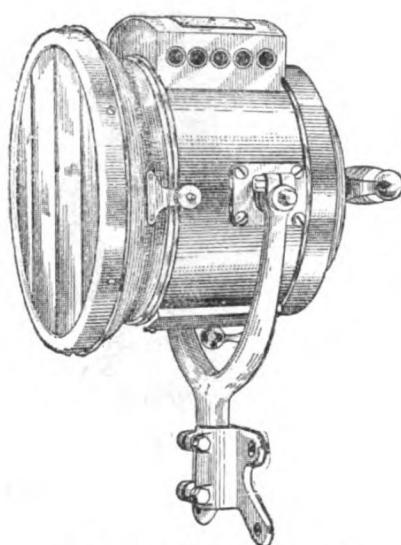


No more broken gas tank keys. Is stamped from sheet steel and tempered.

Price, each \$0.10
Per dozen 1.10

UNIVERSITY OF MICHIGAN

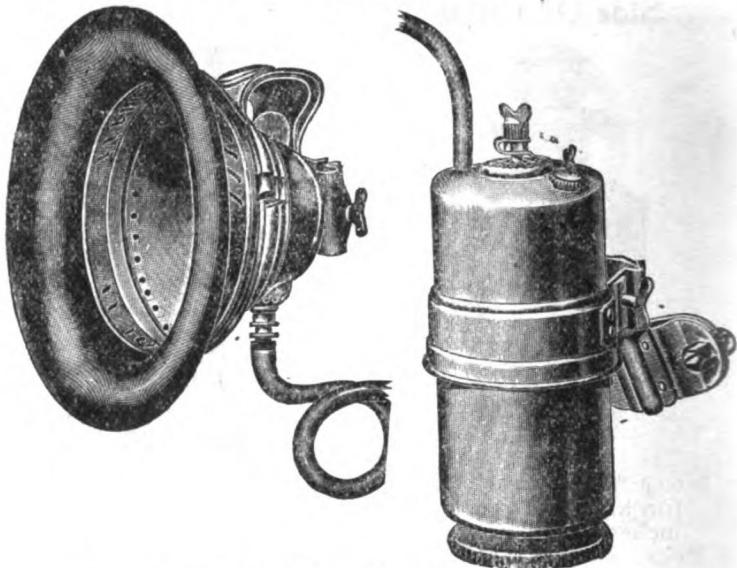
E. & J.
Searchlights



Equipped with best ground
Mangin Mirrors.

Model Nos.	3660	3770	3880
Diam. Flange	8	9	10½
Length	9	9½	10
Height	14	15	16½
Diam. Mirror	6	7	8
Price, each	\$12.50	15.00	18.50

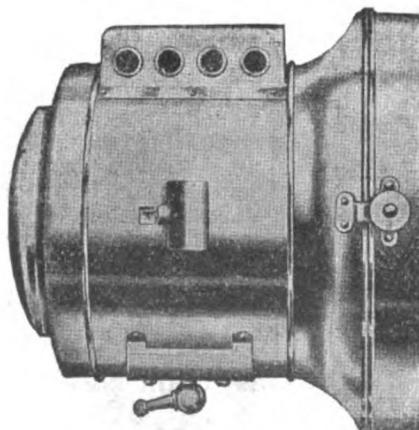
**Canoe and Motor Cycle
Gas Lamps and Generators**



Beautifully designed flare front lamp, finished in nickel and with nickel fittings, suitable for Bicycle, Motor Cycle or Canoe, throws a brilliant light; diameter 5 in., depth 4½ in.

No. 55A. Lamp and 55B Generator; burns 6 to 8 hours.	Price	\$ 6.50
No. 54A. Lamp and 54B Generator; Diameter 6¼ in., Depth 5 in., burns 8 to 10 hours.	Price	\$ 8.00
No. 53A. Lamp and 53B Generator; Diameter 5½ x 6¾ in., Depth 4 in., burns 12 to 14 hours.	Price	\$10.00

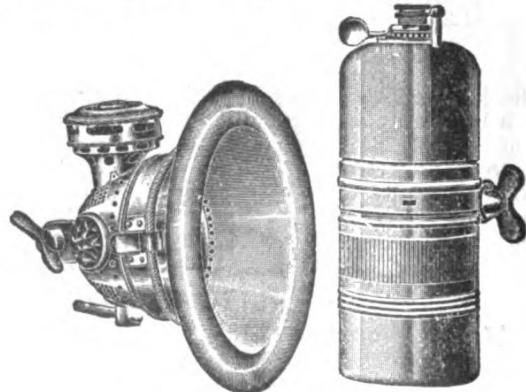
E. & J.
Gas Headlights



Equipped with best ground Mangin Mirrors

Model No's.	365	366	377	388
Diam. Flange	8 in.	8 in.	9 in.	10½ in.
Length	9 "	9 "	9½ "	10 "
Height	8 "	8 "	9 "	10½ "
Diam. Mirror	5 "	6 "	7 "	8 "
Price, each	\$8.00	\$8.25	\$11.50	\$15.00

**20th Century
Motor-Cycle Lamp and Generator**



No. 4

No. 4. The most popular lamp made; beautiful in design and finish, and a good light producer.

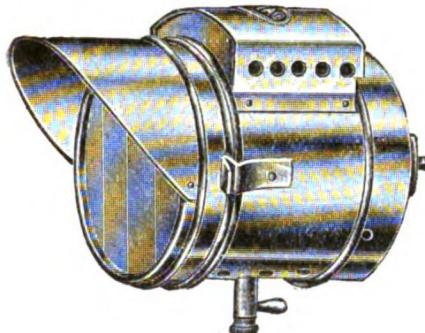
Price, lamp only	\$3.00
Price, Nos. 4 and 9.....	6.00

No. 9

No. 9. Generator. Is simple, strong and reliable.

Price	\$3.00
-------------	---------------

**Columbia Motor Cycle
Searchlight.**



Model L. Made of heavy brass, highly nickel plated, and equipped with 4-inch mirror lense, gives a long searching light. They will stand their own heat and the wear and tear of heavy roads. Your motor cycle, boat, canoe, yacht and bicycle are not complete without one of them.

Price, complete with generator, \$10.00



"An Ideal Canoe Lamp."

No. 84. As complete and perfect as a large searchlight. Is equipped with 4-in. lense mirror, and either dash or deck bracket. Price.....\$12.50

20TH CENTURY MOTOR CYCLE SEARCHLIGHT

" No. 67. Has genuine lense mirror, heavy brass body; a powerful light producer.

Price, lamp only.....\$ 7.00
" with No. 9 generator

Digitized by Google
Price.....\$10.00

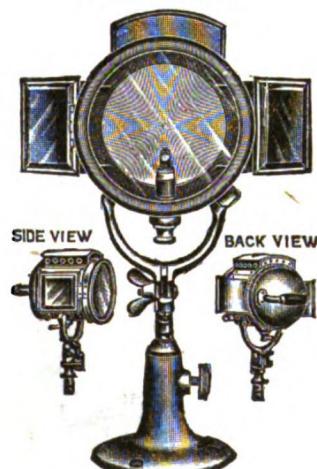
Columbia Motor Cycle Generator.



This generator is small neat and compact, simple, strong and reliable.

Price.....\$5.00

LAUNCH GAS HEADLIGHT



"Baby Grand"

No. 61. This is the neatest and most stylish little lamp ever made.

Just the thing for a swell canoe or launch.

Red & green side lights $2\frac{1}{2}$ in. Diameter of front..... $4\frac{1}{4}$ in. Extreme width..... $7\frac{1}{4}$ in. Finest ground Mangin Mirror.....4 in.

Height, includ. stand, 12 in.

Price.....\$14.00

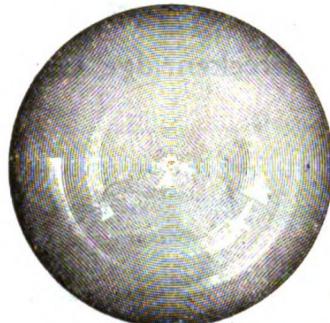
Lamp Connections



Made of best quality red rubber, 12 inches long, heavily rolled at each end, making it very easy to put on and take off.

Price, each.....\$0.25

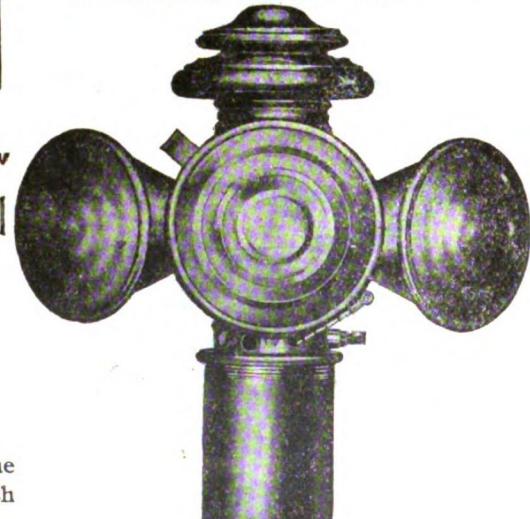
Lamp Lenses



For Motor Cycle, Canoe and Bicycle Gas Lamps

20th Century.....	Price \$0.30
Solar	" .50
Columbia.....	" .20
Breckenridge	" .25

LAUNCH GAS HEADLIGHT



No. 21 F

Just the thing for inland lakes & streams.

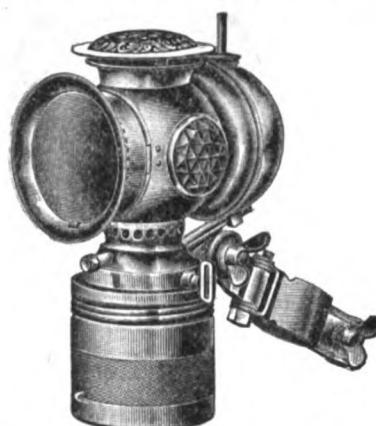
Made entirely of brass, is 18 in. high, 13 inches wide and $9\frac{1}{2}$ inches deep. Has red and green semaphore side lights $4\frac{1}{4}$ inches in diameter, and white lense front 5 inches in diameter. Self contained generator, burns 6 hours.

Price, without bracket

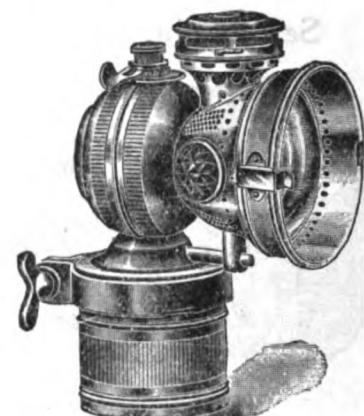
\$12.00

Price, with brass bracket.....\$13.00

CANOE, MOTOR-CYCLE, OR BICYCLE GAS LAMPS

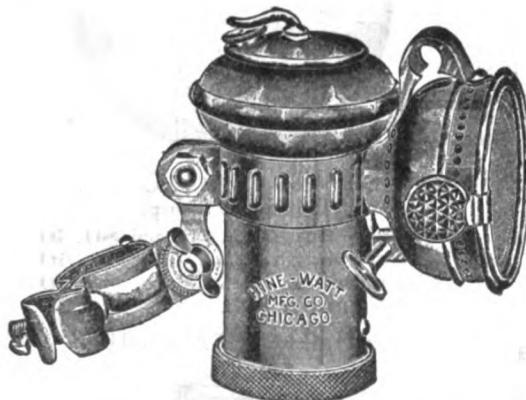


Breckenridge Gas Lamp



20th Century Gas Lamp

Price, each \$3.00 Price, each \$3.25



Columbia Automatic Gas Lamp



Solar Gas Lamp

Price, each \$2.50 Price, each \$3.50



Congress Gas Lamp

A neat, popular sized lamp; will give entire satisfaction. Very suitable for canoes and bicycles.

Price, each \$2.50



Lightweight Oil Lamp

Price, each \$1.25

ALCO BURNER



Made in three sizes.
 $\frac{1}{4}$, $\frac{5}{8}$ or $\frac{3}{4}$ foot.
 Price, each \$0.35
 Price, doz. 3.60

BRASS UNION "Y"

GAS LAMP SUPPLIES

LUTA BURNER



Made in four sizes.
 $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ or 1 foot.
 Price, each \$0.35
 Price, doz. 3.60

BRASS UNION "Straight"

FRENCH BURNER



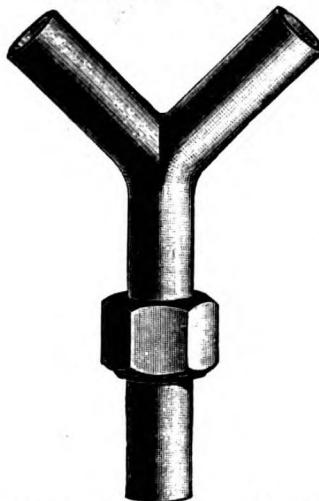
With tapered thread.
 Will fit French lamps
 Price, each \$0.50
 Price, doz. 5.40

BRASS UNION "T"

 $\frac{1}{4}$ FT. BURNER

Suitable for bicycle
 and any small lamp.
 Price, each \$0.25
 Price, doz. 2.40
 With metal base.
 Price, each \$0.35
 Price, doz. 3.60

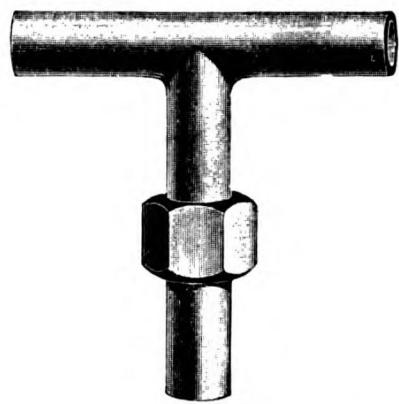
BRASS UNION "T"



$\frac{1}{4}$ in. inside diameter, suitable
 for brass or copper tubing.
 Each Doz. \$0.25 \$2.40
 No. 16 \$0.25 \$2.40



$\frac{1}{4}$ inch inside diameter.
 Each Doz. \$0.20 \$2.16
 No. 15 \$0.20 \$2.16



$\frac{1}{4}$ in. inside diameter, suitable
 for brass or copper tubing.
 Each Doz. \$0.25 \$2.40
 No. 17 \$0.25 \$2.40

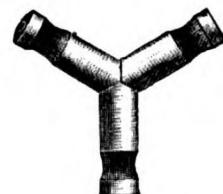
GAS TUBING NIPPLES



"No. 3X." Each \$0.10 Doz. \$1.08
 The above Gas Tubing Nipples are for connecting rubber and copper tubing to Gas Lamps.

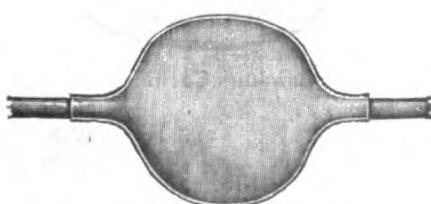


"No. 2T." Each \$0.10 Doz. \$1.08



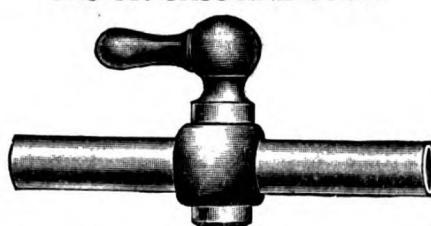
"No. 4Y." Each \$0.10 Doz. \$1.08

GAS BAG



Made of pure Para rubber.
 No. 2 is $3\frac{1}{4}$ inches. Price \$0.35

No. 1 has ground joints, ends are reamed to fit
 $\frac{1}{4}$ in. O. D. tubing. A perfect gas or gasoline cock.
 Price Each \$0.30 Doz. \$3.00

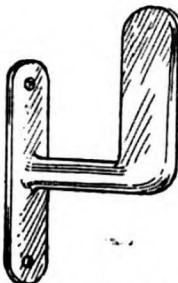


Original from

UNIVERSITY OF MICHIGAN

GAS LAMP SUPPLIES

LAMP BRACKETS



For Oil Side Lights
Style D. C.

Malleable Iron

Price, pair \$1.20

Price, pr. Brass 1.50



#50
STYLE F

Tail
Lamp Bracket

Made of Bronze.

Price \$0.50



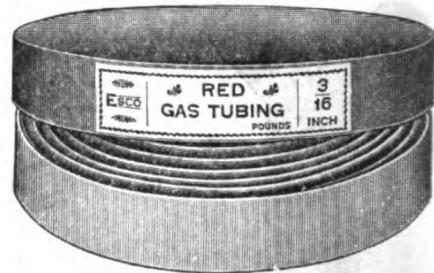
For Oil Side
Lights.

Style D. D.

Malleable Iron.

Price, pr. \$1.20

“ “ Brass 1.50



Rubber Gas Tubing.

Our pure gum Red Rubber Gas Tubing is heavy and will outwear the majority of tubing offered for sale.

Price, per foot \$0.12



Bicycle Bracket No. 1.
Price \$0.35



Canoe Bracket No. 7.
Price \$0.35



Motor-Cycle Bracket
No. 15.
Price \$1.25



3/8 in. Each Doz. 100
7/16 in. .10 \$1.00 \$6.00
1/2 in. .10 \$1.00 \$6.00

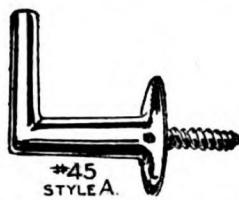


**Annealed Soft Copper
Tubing.**

1/4 in. outside diameter.

The best connection for acetylene gas, will last forever; it is annealed soft, and can be bent to any shape.

Price, per foot \$0.15



Tail Lamp Bracket.
Made of Bronze.
Price \$1.00



Ham's
Tail Lamp Bracket.
Made of Brass.
Price \$0.60

Drop Forged Fork Bracket



Are the very best grade of forgings, and are made with a long enough stub of liberal stock to be forged in shape to fit car as desired, or welded to other attachments.

Centers measure 6 1/2, 8 1/4 and 9 1/2 inches.
Price, each \$1.50



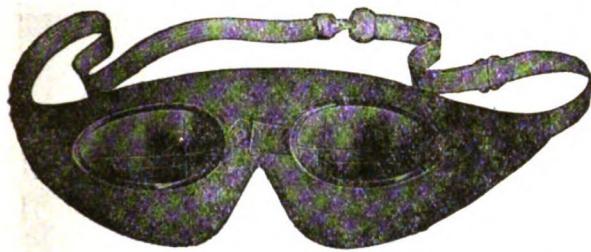
Calcium Carbide.

	Each	Case
2 lb. can	\$0.30	\$3.90
10 lb. can	1.00	4.35
Case contains 24 2-lb. cans.		
Case contains 6 10-lb. cans.		
2-lb. cans contain 1/2 in. size only.		
10-lb cans contain 1/2 or 1 in. size.		

Original from

UNIVERSITY OF MICHIGAN

GOOGLES.



GENUINE GOGGETTE.

No. 746. The eye cups are made of aluminum, are exceedingly light, they are fitted with rubber cushions inflated, which make them fit snugly around the eyes, protecting them from insects and foreign particles. They are perfectly sanitary, and can be washed or sterilized without doing them any harm, they fold in a very neat and compact form, a neat leather case is furnished with each pair.
Price \$5.00



No. 782. Eye Cups are made of metal, and cannot break, eye cups are provided with slits in the horizontal and vertical meridians, giving bright, clear vision, protecting the eyes from the sunlight, snow, rain, dust or sweat. Will not interfere with a clear vision.

Price \$5.00

No. 760. Four Way folding frame with four glasses silk lined. Price \$1.50
No. A760. Same as above but with fine wire gauze instead of leather, a perfect summer goggle. Price \$2.50



No. 701. Collapsible and folding small oval lenses, especially designed for the Misses, is handsome in appearance and made of best stock, cups are of silk, and edged with chenille.
Price \$2.50



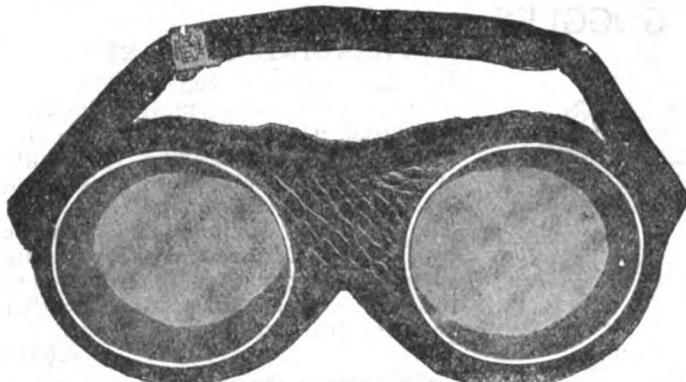
No. 749. Leather mask with stationary ventilated eye cups.
Price \$1.00



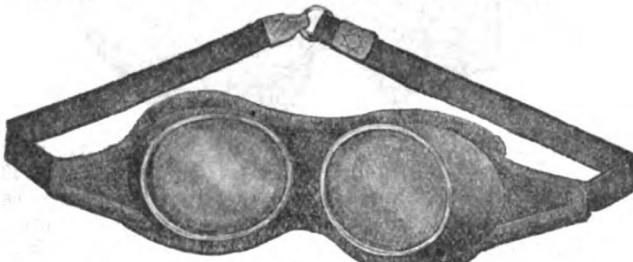
No. 741N. Aluminum bright polished eye cups.
Price \$0.50



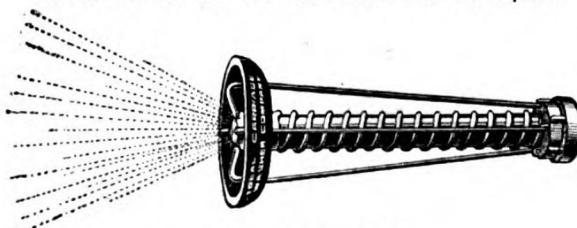
No. 708. Collapsible and folding, extra larg removable lenses, cloth bound. Price....\$1.50
No. 708. Same as above but with smoked lenses. Price 2.00



No. 724. Aluminum bright polished eye cups, ventilated, lined with leather, and edged with chenille, elastic head band.
Price \$1.50

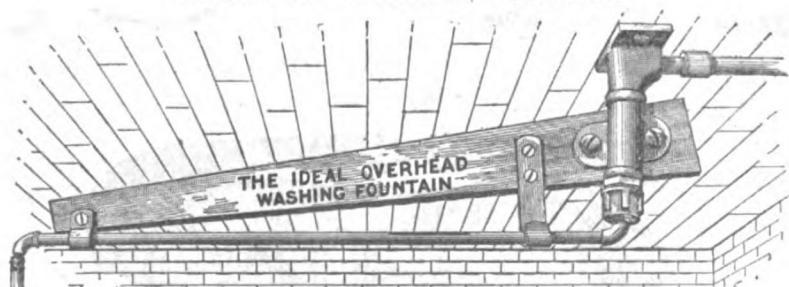


No. 705. Collapsible and folding, extra large oval lenses, shallow cups, reinforced with leather and silk, edged with chenille, elastic headband.
Price \$2.50



AUTO WASHER
Use spray for softening mud, wet sponge before inserting, slide rubber cup down as far as it will go, and insert sponge, screw auto washer to your garden hose and you are always washing with a clean sponge and clean water.
Price \$3.00

OVERHEAD WASHING FOUNTAIN



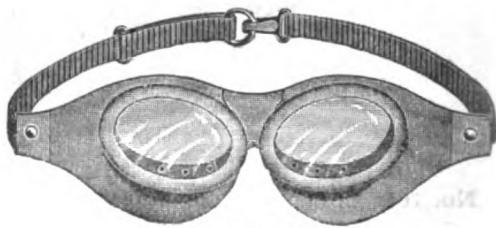
Saves hose, time, labor; carries hose around Automobile without touching floor, consequently does not kink or destroy hose. Easily attached to ceiling in center of wash floor by two ordinary wood screws. Arm is six feet long, making a twelve foot circle in one revolution.
Price \$10.00

GOGGLE CASE



No. 851. "Hercules" metal case, covered with leather, button snap, very strong and durable. How many times have you broken your goggles?

Price \$0.75



"RUBBER GOGGLE"

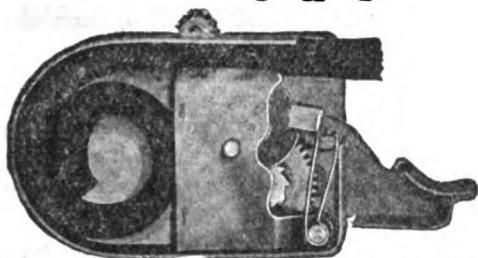
No. 31. This is certainly the most comfortable goggle on the market, and is easy to keep clean; the large eyecups gives the user a broad range of vision.
Price \$1.50



An electric Cigar Lighter that can be used at any time. Will also light your acetylene lamps. Also has an electric light attachment, giving you a safe and convenient repair lamp; it attaches with 10 ft. of cord to your dry cells or storage battery.

Price complete \$3.00

Matchless Cigar Lighter



Simply a charred cotton wick; cube of flint, steel wheel, and lever to produce friction. It will light your cigar anywhere, at any time, in wind, rain or snow; the harder the wind blows, the brighter it glows. It fits the vest pocket; above cut is two-thirds actual size. Cannot explode, as no oils or chemicals are used.

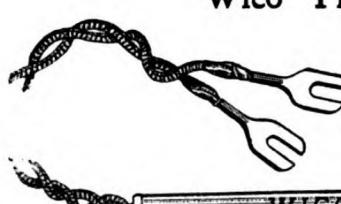
Price 50c
One extra wick.... 5c
One doz wicks.... 25c
Extra cube of flint..... 10c

Auto Creeper



Get under your car with a Creeper. All the advantages of a pit with the cost cut down.

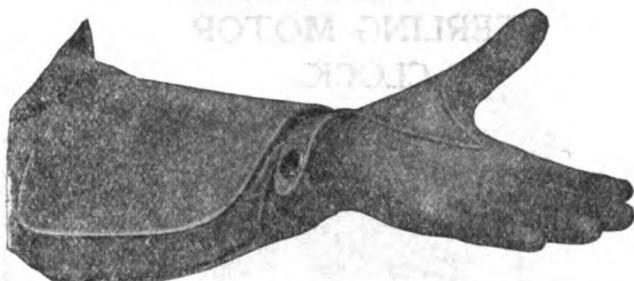
Price \$3.00



Wico Trouble Lamp

If you want to work with a light, don't use a lighted match or oil lamp around your car; get a Wico Trouble Lamp and avoid accidents and loss of your car caused by gasoline explosions; it has sufficient length of silk covered cord to connect to batteries, and any part of auto or boat may be reached. Price..... \$1.75

GAUNTLETS



M. W. M. "Motor Red." They are made of South American Lamb Skin, the softest and the best leather on the market; cuffs made of one piece leather, also leather inside with heavy canvas between; no paper or leatherette to fool you, unlined or Fleece lined.

Price, per pair..... \$6.00

"Motor Black." Are made of domestic Lamb Skin and are made on gauge machine, that's why they fit so well, unlined or Fleece lined. Price, per pair..... \$3.50

No. 2200. A new black tannage of guaranteed Horse Hide, they will outwear any Cape or Kid Glove ever placed on the market.

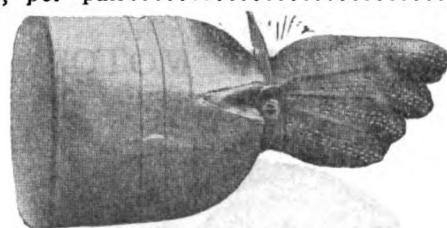
Price, per pair, unlined..... \$5.00

"One Finger Gauntlet." Fleece lined, is very warm, and with the first finger and thumb the throttle and Spark is easily manipulated.

Price, per pair..... \$4.50

"Repair Gauntlet." Made of slicker material, with long cuffs that reach to elbows, so in working around your Auto you cannot ruin your coat sleeves with grease, dirt, etc.

Price, per pair..... \$1.00



GRINNELL GAUNTLETS.

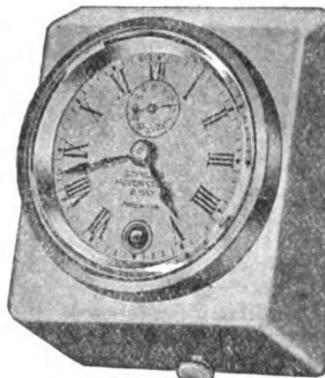
They are ventilated by perforating the back of fingers, and will be found an ideal summer gauntlet.

No. V 6020 Tan Cape. Price, pair..... \$3.00

No. V 6020 B Black Cape. Price, pair... 3.00

No. V 2020 Black Dogskin. Price, pair.. 3.50

STERLING MOTOR CLOCK.



Eight-Day Silver Dial.

So handsome a motor clock was never before offered for three times the money; the heavy brass offset case measures $8\frac{1}{2}$ inches across by $4\frac{1}{2}$ inches up and down, and is $2\frac{3}{4}$ inches deep at the lower part; the dial is $3\frac{1}{4}$ inches across, is beautifully silvered and is protected by a heavy beveled crystal; it is thief proof when once put on and the winding key in possession of the owner is necessary to remove it; the case construction absolutely seals it against rain, mud or dust.

Price.....\$10.00

VENUS MOTOR CLOCK.



Eight-Day Luminous Dial.

At night, a glance at the Venus clock, and you know the time. It does not shine, it glows. Figures and hands plainly visible whenever you choose to look at it.

Price.....\$7.00

IMPERIAL MOTOR CLOCK.

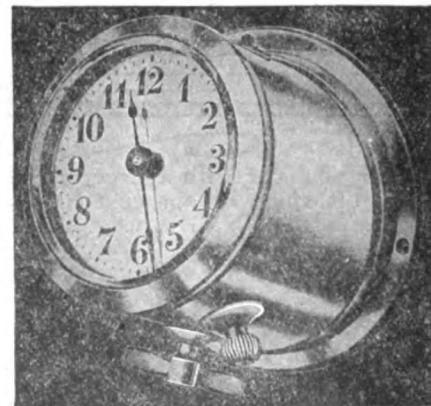


Eight-Day Accurate Timepiece.

The dial is $3\frac{1}{2}$ inches in diameter, and has large Arabic figures which can be seen from the seat. Case is of solid brass, highly polished, and dust and water-proof.

Price.....\$6.00

MARS MOTOR CLOCK.

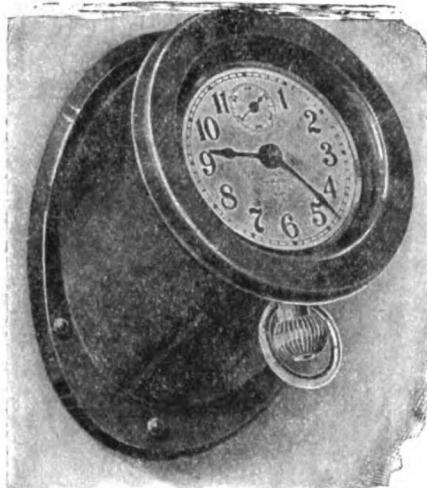


Eight-Day, Silver Dial.

The case is made of extra heavy gauge brass, with a bright finish. Case both dust and water-proof; winding and setting stems are at bottom. Dial is silvered finish.

Price.....\$7.00

Ingersoll Dash Clock.



One-Day Motor Clock

No. 1. The case is made of black hard rubber, and is handsome and compact in design. The clock is stem setting and stem winding.

Price.....\$4.00

Ingersoll Dash Clock.

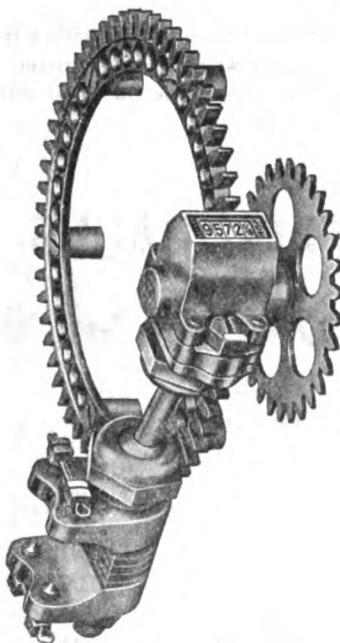


One-Day Motor Clock

No. 2. A good clock. Stem winding and stem setting, has heavy figures in the dial and large hands. Case is made of heavy brass.

Price.....\$2.50

Veeder Odometers.



1909

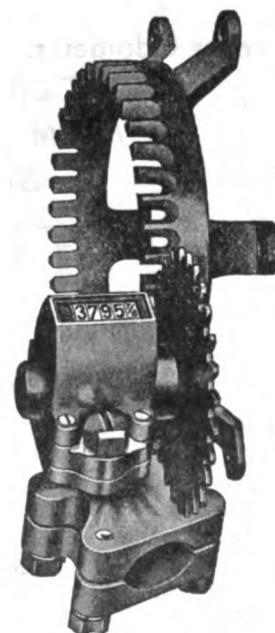
A dustproof and waterproof instrument, operated by spur gears. The gears give a smooth, even movement to the mechanism, no matter what the speed of the car to which the instrument is attached. The driving gear encircles the hub of the left front wheel, and the instrument is so placed in relation to it on the steering knuckle that the drive gear is constantly in mesh with it.

Supplied for any make of car. When ordering, state make and model number, give year of manufacture, and size of front wheels.

We have Veeder 1907 Odometers that we will close out for less than cost. See if what you want is in the list: Model F, Ford, for 30 inch wheels; for Olds Tonneau, 30 inch; for Model E Queen, 30 inch; for Models A, B, E and F Franklin, 28 inch; for Model C, White, 30 inch.

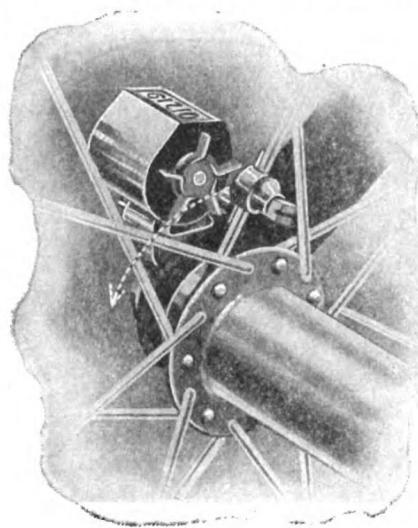
Price, 1908 instrument.....\$10.00

Price, 1907 instrument, while they last.....\$6.50



1907

Veeder Regular Cyclometer



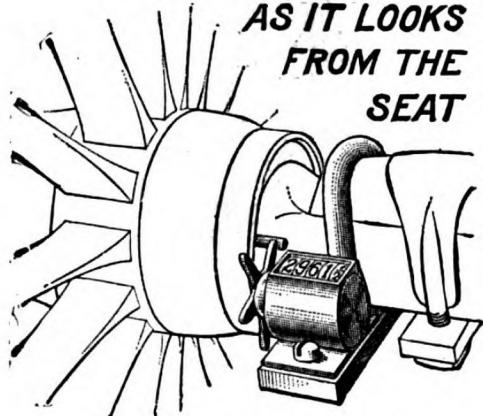
"For 28 or 30 inch Tires"

Every Bicycle, Motor Cycle and Sulkey should be equipped with one of these instruments; you will be surprised the number of miles you have traveled at the end of the year; registers 10,000 miles.

Price..... \$1.00

Veeder Odometer.

*AS IT LOOKS
FROM THE
SEAT*



"For horse drawn vehicles"

Registers to 10,000 miles.

In ordering give diameter of left front wheel, also size of axle and if straight, slightly curved, or arch type; also if for wood or wire wheels.

Price for straight or curved axle..... \$3.50

Price for arch axle..... 9.00

CYCLOMETER STRIKER



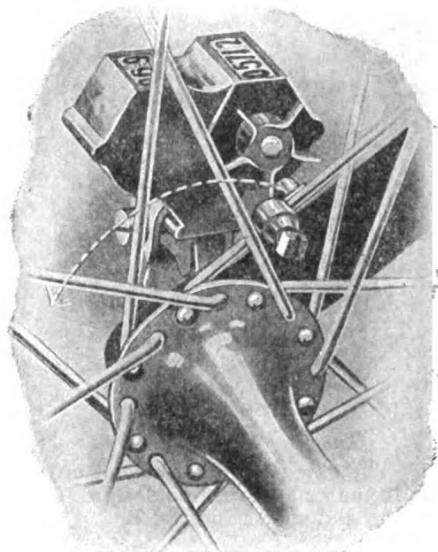
Price..... \$0.15

AUTO RIM WASHERS



"For Wood Rims."
Price, Doz... \$0.15
Price, 100... .75

VEEDER TRIP CYCLOMETER



"For 28 or 30 inch Tires"

This instrument is equipped with a trip and total indicator; at will the trip register can be turned back to zero, while the total continues on to 10,000 miles.

Price..... \$2.50

STEEL BALLS.



Size	Price less than 10	Price 100	Price 1000
1-8 in.	1/2c each	\$0.15	\$ 1.20
5-8 in.	1/2c each	.20	1.70
3-16 in.	1/2c each	.20	2.00
7-32 in.	.01c each	.30	2.60
1-4 in.	.01c each	.35	2.70
5-16 in.	.01c each	.50	5.00
11-32 in.	.02c each	.70	7.00
3-8 in.	.02c each	.75	7.50
7-16 in.	.04c each	1.60	16.00
1-2 in.	.05c each	2.60	20.00
9-16 in.	.05c each	2.70	27.00
5-8 in.	.05c each	3.00	30.00
11-16 in.	.06c each	3.90	39.00
3-4 in.	.08c each	5.00	50.00
13-16 in.	.10c each	7.00	70.00
7-8 in.	.12c each	9.00	90.00
15-16 in.	.15c each	10.00	100.00
1 in.	.18c each	12.00	120.00
1 1-8 in.	.20c each	16.00	160.00

Stewart Speedometers

The 1909 line of Stewart Speedometers is conceded to be the most beautiful ever shown

Stewart Speedometers are recognized the world over as the standard in speedometer construction. They combine features of workmanship, material, construction, equipment and performance that have never been equaled by any speed indicator at any price.

Quality—

Starting with the beveled French plate glass that covers the instrument, down through the etched silver dial, the brass enclosing cup or case, the splendid enclosed odometer, the hardened and ground spindle, revolving on ball bearings, cups and cone of which are turned from the solid bar (not stamped), the tempered steel lined flexible shaft case with unique link core, the famous Stewart (patented) swivel joint, the steel wheel gears and rigid steering arm clamp—

there is quality—

better and more costly workmanship and material than can be found in any speedometer made in the world, today.

Other features that make Stewart Speedometers superior to all others are indisputable accuracy, the non-vibrating, non-fluctuating pointer, the evenly spaced scale, instantaneous indication of every change of speed.

Once the speedometer is installed it may be forgotten, so far as attention is concerned, as it will outwear any car.

Guaranteed Absolutely for Five Years



Model 4, \$40

Model 4—Four-inch, 60-mile dial, enclosed season odometer and automatic resetting trip register, and maximum speed hand, price \$40

The most complete speedometer ever produced, indicates speed up to 60 miles, dial measures four inches in diameter, silver finished, figures in black enamel, easily read from any part of the car. The scale is evenly spaced (a feature of the Stewart instruments), making it possible to read the speed without confusion. This model is equipped with enclosed season odometer and trip register. The season register records the mileage up to 10,000 miles and repeats. The trip register is of improved construction having three dials, which will record the miles and tenths of each trip up to one hundred miles. It is equipped with an automatic resetting device of unique construction. Slight pressure on a plunger causes the register to be reset to 0 automatically. In the construction of this mechanism the manufacturers have kept within lines that would insure continuous service, and the elimination of springs and complicated devices liable to get out of order.

All No. 4 Models will be equipped with maximum speed hands which indicate the highest speed attained. We are now able to offer a maximum speed hand construction guaranteed to give service the unique feature of which is the entire elimination of springs. This hand is carried forward by the speed indicator hand and may be reset by means of a push button, no possibility of derangement, no placing additional strain on the indicating means—the great fault to be found heretofore with the mechanism used in other speedometers for moving the maximum hand. These features, in connection with other refinements used this season in the construction of this model, will tend to make it even more attractive than ever.

This splendid instrument contains all the improvements and special features offered with even the highest priced speedometers on the market. The workmanship is superior, the materials costlier, **the whole guaranteed absolutely for five years.**

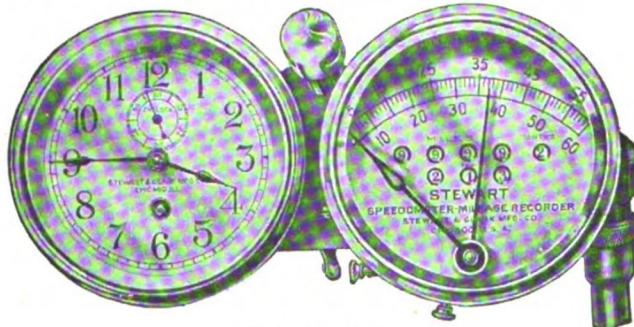
Model 5—Four-inch, 90-mile dial, enclosed season odometer and automatic resetting trip register, and maximum speed hand, price \$50

In every feature a duplicate of model 4, as described above, but made to indicate speed as high as 90 miles. This is an exceptionally handsome instrument and is very popular for use on high powered cars. It is equipped with the maximum speed hand, 10,000 mile season odometer and automatic resetting trip register.



Model 5, \$50

Model 9—Clock combination, comprising a "Model 4" 60-mile Stewart Speedometer, and 8-day Chelsea clock mounted on brass base, equipped with electric light, price \$75



Model 9, \$75

Model 4 Stewart Speedometer, mounted on a beautifully finished brass base equipped with a brass post containing an electric light. The outfit is complete with electric wire and switch, by means of which the light may be turned on or off as required.

The name "Chelsea" speaks for quality of the clock portion of this combination, Chelsea clocks are the very best clocks the market affords for automobile use—the severest test to which a clock mechanism could be put. The Chelsea is an eight-day movement. It is superior to and costs more than would the small movement usually supplied with speedometers. It measures four inches across the face, exactly the same size as the speedometer, and is mounted in a case of the same design and finish.

The speedometer used is the regular Stewart 60-mile model, exactly the same instrument as supplied if speedometer were ordered alone. The base is of brass, finished to match clock and speedometer. Between the two a post is stepped, somewhat higher than the instrument, with two openings, so arranged that the light from a concealed electric globe will shine on both speedometer and clock. Under the base of the combination is installed a switch completely wired, ready to attach to dry batteries.

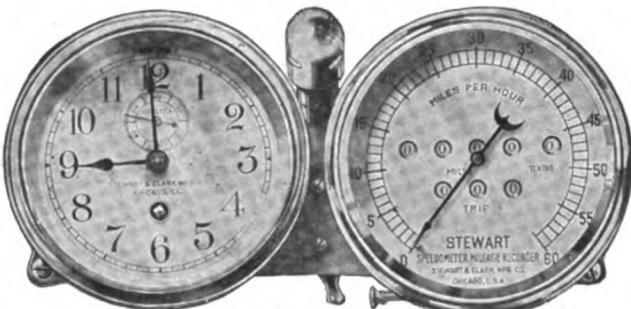
The price for the Stewart combination complete, as described, is \$75. You are usually asked to pay an additional \$125 up for such combinations, and on which the clocks are often smaller in size or of inferior construction.

**Model 11, \$25**

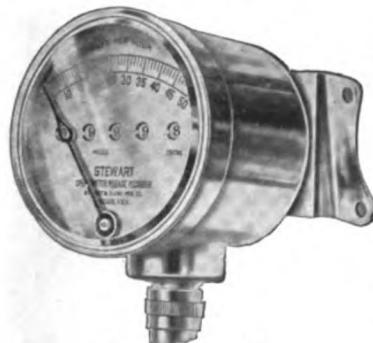
miles per hour, but to meet any demand they have provided in this model a means of indicating the slowest turn of the wheel. The needle, or hand, acts from the center of the dial, giving the instrument a nicely balanced appearance, which arrangement permits the use of a scale three times as long as used on ordinary speedometers, making it the most easily read indicator on the market.

This model is equipped with a season and trip odometer, exactly the same odometer used in the Stewart \$40 model, including the new automatic trip resetting feature. The construction is of the costliest kind, every part is of the same high standard used in all Stewart speedometers, and includes jewel bearings. This instrument has been constructed to meet every requirement of the most exacting buyer.

Model 10—Clock combination, comprising the Model 11 4-inch, 60-mile speedometer and 8-day Chelsea clock, mounted on brass base, equipped with electric light, price \$60

**Model 10, \$60**

This combination includes the new Stewart \$25 model just described, and the regular 4-inch, 8-day Chelsea clock—the same clock used on the \$75 combination—the same equipment in every way, making a combination certain to please all and sure to become the most popular clock combination ever produced. Just imagine a complete high grade speedometer and clock outfit for \$60.

**Model 12, \$15**

Model 12—Three-inch, 50-mile dial, enclosed season odometer, price

\$15

Think it over—\$15 for a high-grade speedometer-odometer.

This model is exactly the same instrument sold last season as the American at \$25, excepting that it is made with a three-inch dial. There is no cheapening in any feature; the workmanship and quality are the same; the construction has even been improved; several new features and refinements have been incorporated.

This instrument indicates speed as high as fifty miles per hour, and is equipped with an enclosed season odometer with capacity of 10,000 miles and repeat.

The handsomest little speedometer ever placed on the market, not to be confounded with speed indicators of even higher price, equipped with external odometers, or confused with ordinary \$15 speedometers stripped of their essential season odometers and without which no speedometer is complete.

We cannot impress the point too strongly that this \$15 model is a thoroughly high-grade instrument, better than any speedometer of any other make, as a trial alongside any other will quickly prove.

Equipment

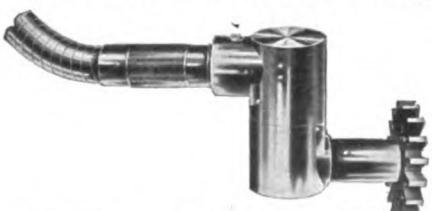
All models, irrespective of price, have the same high quality equipment of flexible shaft, swivel joint and gears. **No distinction—each and all are equipped with the famous Stewart link type flexible shaft and unique swivel joint;** features responsible for the elimination of all shaft troubles with Stewart Speedometers, and every experienced motorist, who has used other speedometers, knows that shaft troubles have been one of the most annoying features with which he had to contend.

The core in the Stewart Flexible Shaft consists of a number of file-hard units, hooked together into a chain, which revolves in a tube formed by coiling a flat, hardened and tempered steel ribbon, the inside surface of which presents a hard, smooth, cylindrical bearing for the core, the whole enclosed with a protecting and ornamental casing of brass. This construction insures a shaft that has sufficient stiffness to absolutely prevent short bends—**by far the costliest construction used by any speedometer manufacturer, but absolutely certain to give the longest service and the least trouble, as it is evidenced by the fact that it is covered with a five-year guarantee.**

Stewart Swivel Joint

Of all the refinements and improvements in speedometer construction, there is probably no one feature that has brought speedometers nearer the ideal than the unique Stewart

Swivel Joint, conceded to be the greatest advancement—the one thing most needed. It makes perfect what was granted to be the weakest point in the equipment of a speed indicator.



*The Famous Stewart Swivel Joint
(Patented)*

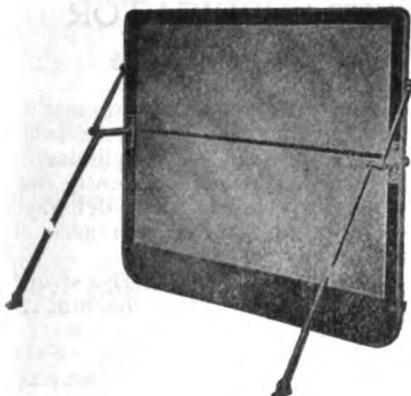
Before the advent of this swivel, the flexible shaft was usually carried down the dash and then bent at a right angle, passing through the springs to the front right wheel.

The sharp bend caused the shaft to crystalize and break, or the car, jolting over rough ground, would compress the springs and crush the shaft. The Stewart Swivel Joint obviates the right angle bend, allowing the shaft to be carried directly from steering arm clamp to the dash along the frame of the car without passing through the springs—a method still followed in some other constructions.

This small, compact, internally locked swivel is not to be confounded with the bulky, clumsy and complicated non-swivel devices now being used to meet the demand that this unique swivel has created and which protect users of speedometers against the shaft breakages and annoyances caused under the old method of installation.

In ordering state name and model of car, also diameter of tire on front wheel.

No. 3 Collapsible Wind Shield



The illustration tells the whole story of the most satisfactory Parting or Folding Wind Shield ever offered for sale. The construction is of the best, the glass is set in a wood frame $1\frac{1}{4}$ inches wide and thoroughly brass bound, the channels across the center being padded to receive the glass; the glass does not come in contact with metal.

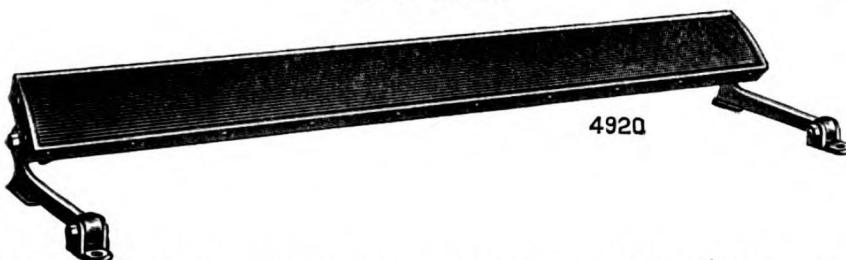
The shield is operated from the seat of the car, and can be raised or lowered in five seconds, locking securely up or down, having no possibility of rattling.

The top sash is hinged by the upper braces, preventing any possibility of being detached and dropping accidentally.

In ordering, specify type of dash (wood or metal) and width of frame desired.

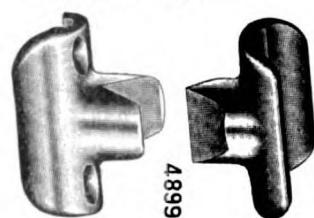
Price complete, double strength glass.....\$30.00
Price complete, $\frac{3}{16}$ inch plate glass..... 35.00

Foot Rails

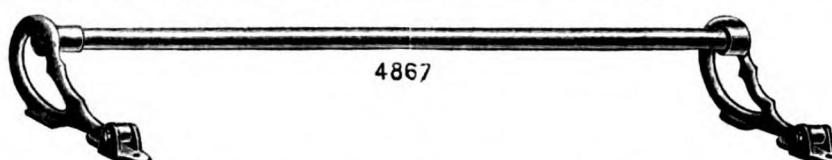


Is made with an oval or convex surface, which is covered with rubber matting and bound with a neat brass binding 8 inches wide, any length up to 36 inches. Price..... \$5.00

Bow Dividers

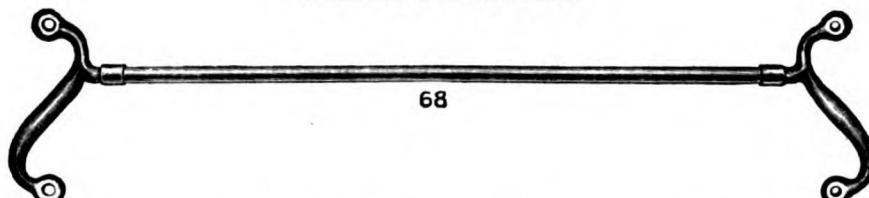


Keep bows a correct distance apart to protect the Top and Curtains.
Set of 6 complete \$1.50

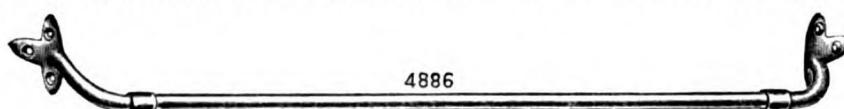


Neatly designed, strong and reliable, made of polished brass. Price..... \$5.00
"Notice."—Unless lengths are specified, all Foot Rails will be sent about $31\frac{1}{2}$ inches long.

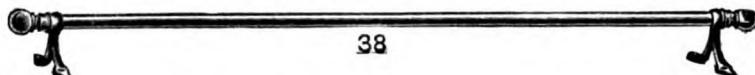
Coat or Robe Rails



Made of $\frac{5}{8}$ inch stock to any length specified; one end left loose when no length is given; rod is long enough to cut to proper length. Price..... \$3.00



Made of $\frac{5}{8}$ inch stock; one end left loose when no length is specified; rod is long enough to cut to proper length. Price..... \$2.30



Made $\frac{5}{8}$ inch diameter, any length ordered. Price..... \$1.80

THE LAVIGNE MECHANICAL FORCE FEED LUBRICATOR

The Ideal Oiler for Automobiles. No Springs, No Check Valves, No Noise, No Guesswork



The only oiler which indicates with mathematical accuracy the amount of oil, in cubic inches, which it delivers to each cylinder of bearing. Each feed can be independently regulated, and the quantity of oil to be delivered at each stroke of pump can be increased or diminished intelligently.

Simple in construction, exceedingly strong and durable and will outlast any machine to which it may be attached.

This oiler has been adopted by many of the prominent builders and is by far the best article of the kind on the market.

No.	Capacity Pints	No. of Feeds	Price
1	4	1	\$12.00
2	4	2	15.50
3	4	3	19.00
4	4	4	22.00
5	6	1	13.50
6	6	2	17.00
7	6	3	20.50
8	6	4	24.50
9	6	5	28.00
10	6	6	31.00
11	8	1	15.00
12	8	2	18.50
13	8	3	22.00
14	8	4	25.50

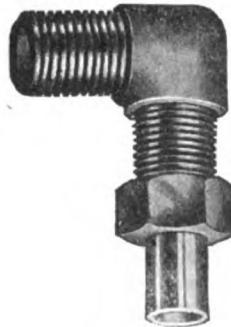
No.	Capacity Pints	No. of Feeds	Price
15	8	5	\$29.50
16	8	6	33.00
17	8	7	36.50
18	8	8	40.00
19	10	1	16.00
20	10	2	20.00
21	10	3	23.50
22	10	4	27.00
23	10	5	31.00
24	10	6	34.50
25	10	7	38.50
26	10	8	42.00
27	10	9	45.50
28	10	10	49.00

Lavigne Oiler



"Style B"

"Ball Check."



"No. 22F" Elbow.
Threaded for $\frac{1}{8}$ in. iron pipe size, and for $\frac{1}{4}$ in. outside diameter tubing.

Price, each \$0.25

Brass Couplings

With or without Ball Check.



"No. 21F" Coupling.
Threaded for $\frac{1}{8}$ or $\frac{1}{4}$ in. iron pipe size, and for $\frac{1}{4}$ in. outside diameter tubing.

Price, each \$0.20

Lavigne Oiler



Double feed construction same as single feed oiler.

No. 10 $2\frac{1}{2} \times 2\frac{3}{8}$ in. high.

No. 11 3x3 in. high.

Price, No. 10, \$10.00

Price, No. 11, 13.50

Lavigne's Glass Body Gas Engine Lubricators

In the ordinary glass body lubricator equalizing passage consists of a small tube which is screwed into an opening in the bottom of the oiler communicating with sight feed chamber; this tube frequently breaks or becomes loose, causing oil to leak and rendering oiler useless; in the Lavigne the central tube is cast in one piece with the base.

Nos. 1	2	3	4	5	6
Outside diameter of glass, ins..	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	3
Height of glass, inches	$1\frac{5}{8}$	$1\frac{7}{8}$	$2\frac{1}{8}$	$2\frac{3}{8}$	4
Capacity, ounces	$1\frac{1}{2}$	$2\frac{1}{2}$	4	5	10
Shank Pipe Thread, inches....	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
Brass, Price each	\$4.50	\$5.00	\$5.50	\$6.50	\$9.00
					\$11.50

NON-FLUID OILS



K-000 Non-Fluid Oil



K-00 Special Non-Fluid Oil



K-000 Graphite Non-Fluid Oil.

NON-FLUID OILS represent a distinct advance over fluid oils and greases for automobile lubrication. Being non-fluid they do not drip and spatter like fluid oils, wasting lubricant, rotting the tires, dulling the varnish and gathering the dust and grit of the road.

Being oils they do not have to be softened up by frictional heat before they begin to lubricate, do not gum and retard the machinery and waste power and fuel like greases.

NON-FLUID OILS are economical because they reduce friction and wear and tear, and because a dollar's worth goes further than a dollar's worth of any other lubricant.

Adopted and recommended by over forty manufacturers of automobiles. Two grades for automobile lubrication—K-000 and K-00 Special.

CAUTION.

Inspired by the success of the original NON-FLUID OILS of the New York and New Jersey Lubricant Company, a number of grease makers are offering common greases under similar names, such as "solid oils," "absorbed oils," "non-flowing oils," "non-liquid oils," etc.

The evident intention of these similar names is to deceive the unwary buyer, by trading upon the reputation and fame of the genuine NON-FLUID OILS.

The unfailing protection for the purchaser is to see that every package offered as NON-FLUID OIL bears the registered trade-mark shown on our cans and the name of the New York and New Jersey Lubricant Company, the originators and the sole producers of NON-FLUID OILS.

COST AND VALUE.

Economy is measured by value—not by low cost. NON-FLUID OILS are not cheap, but they have value. A dollar's worth of NON-FLUID OILS will lubricate better and last longer than a dollar's worth of any other known lubricant.

**K-000
NON-FLUID OIL.**

is of proper consistency for use in compression cups on all bearings, for packing differential gears, planetary transmissions, for steering gear knuckles, ball and roller bearings, axles and universal joints.

Lasts longer than any grease.

**K-00 SPECIAL
NON-FLUID OIL.**

is softer than the K-000 grade. Designed particularly for lubricating sliding transmissions. It cushions the gear teeth, prevents shocks when changing speed, prevents abrasion and heating and assures smooth, quiet running.

Reaches and lubricates all shaft bearings.

BUY ONLY IN ORIGINAL PACKAGES AS SHOWN ABOVE.

3-lb. cans, \$.75 each; 5-lb. cans, \$1.25 each; 10-lb. cans, \$2.00 each; 20-lb. cans, \$3.50 each; 50-lb. cans, \$7.50 each.

CYLINDER OILS

N. F. O. Cylinder Oil No. 1.



This high grade lubricant is a combination of the highest grades of mineral lubricating oils, and is especially manufactured for lubricating the cylinders, has a high fire test and viscosity, with extremely low cold test; can be used 12 months in a year.

1 Gal.	5 Gal.	1 BB1.
Price, we furnish can... \$0.90	\$4.25.....	\$0.60 Gal.
Price, you furnish can... .75	3.50	

No. 68 Medium Cylinder Oil

Medium bodied, adapted to the majority of water cooled motors.

1 Gal.	5 Gal.	1 BB1.
Price, we furnish can... \$0.65	\$3.00.....	\$0.40 Gal.
Price, you furnish can... .50	2.25	

Packard No. 24 Cylinder Oil

Light bodied, adapted for closely-fitting pistons; its cold test recommends it for winter use.

1 Gal.	5 Gal.	1 BB1.
Price, we furnish can... \$0.65	\$3.00.....	\$0.40 Gal.
Price, you furnish can... .50	2.25	



Glycerine Price Gal. \$3.00

Alcohol (Denatured) Price Gal. 1.00

" " 5 Gal. 4.00

" " 10 Gal. 7.00

The above prices do not include cans; for cans add: 1 Gal. \$0.15, 5 Gal. \$0.75, 10 Gal. \$1.25.

Powdered Glass, per bag \$0.15

Carbide, 100 lb. Drum \$5.00

Gray Fill Gum for filling Digs, Deep Cuts, Blisters, etc., in outer casings.

Price, per Tube \$0.50

Felt Patches, made of the best gray rubber, backed up with non-conducting wool felt which keeps the heat of the shoe from reaching the patch proper.

Each Doz.

No. 17 2x2 in. Price \$0.10 \$1.00

No. 20 1½x3½ in. Price .15 1.50

No. 22 2x5 in. Price .20 2.00

GRE-SOLVENT

This is the genuine Grease-Solvent, unequaled for instantly dissolving and removing from the hands all machine grease, grime, paint, printers' ink, etc.

It positively will not injure the most sensitive skin.

Gre-Solvent has been favorably known for five years, and is now offered in improved cans of largely increased capacity. Edge of can is turned over, stiffening it, and preventing cutting the hand when removing cover or contents.

10 oz. can (net weight). Price..... \$0.10

2 lb. can (net weight). Price..... .25

4 lb. can (net weight). Price..... .50

9 lb. can (net weight). Price..... 1.00

Non-Freezing Solution. For use in Coolers during the winter months, will not freeze at 20 below zero; also guaranteed not to contain acids or anything injurious to metal parts; in your can 75c Gal.; if we furnish cans add: 1 Gal. can \$0.15, 5 Gal. can \$0.75, 10 Gal. can \$1.25.

Lipman Commutator. For Ford four cylinder runabouts; all attachments furnished and no machine work necessary to place this commutator on end of cam shaft, just back of cooler.

Price \$12.00

Straps for Tire Holders.

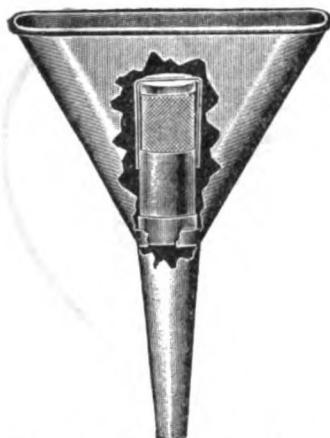
Size 18x9/16 in..... Price each \$0.15

Size 30x9/16 in..... Price each .20

Solder, Half and Half.

Price, per lb..... \$0.30

TOOL BOX FUNNELS

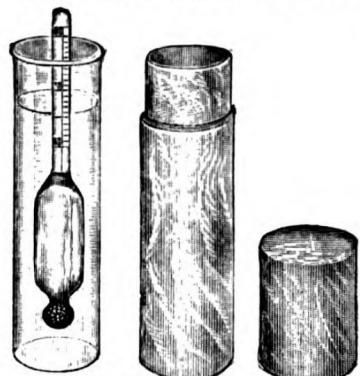


No. 2. Oval shape 7 x 3 ins., has removable stand pipe strainer.
Price \$1.00



No. 1065. Oval shape 7x3 ins., has wire strainer.
Price \$0.60

GASOLINE HYDROMETER



For testing grade of gasoline.
Price \$0.50

GARAGE FUNNEL



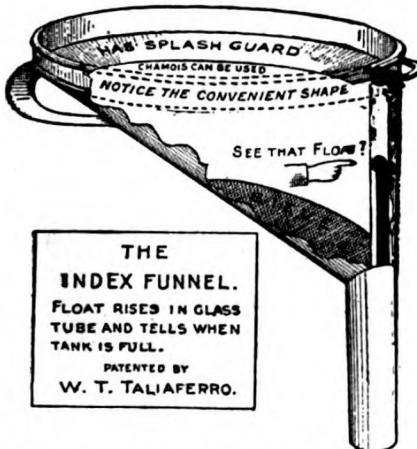
No. 40. Holds 4 quarts, has fine brass strainer and removable hoop to hold chamois.
Price \$1.25

COLLAPSIBLE BUCKET



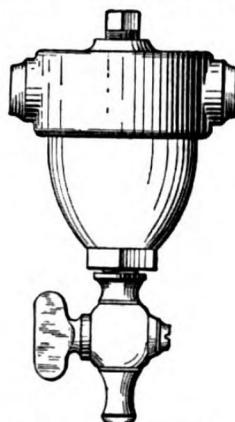
Collapsible Bucket should be part of every car equipment, and will be found especially serviceable in touring. Price \$1.50

INDEX FUNNEL



No guessing when your tank is full of gasoline.
Price \$2.50

GASOLINE SEPARATOR

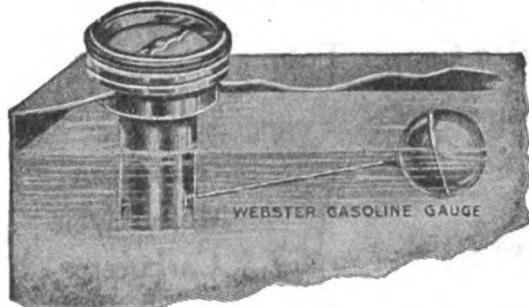


Is placed between gasoline tank and carburetor. All foreign substances are trapped instead of entering carburetor.

$\frac{1}{8}$ or $\frac{1}{4}$ inch pipe size..... \$2.50

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THE WEBSTER GAUGE



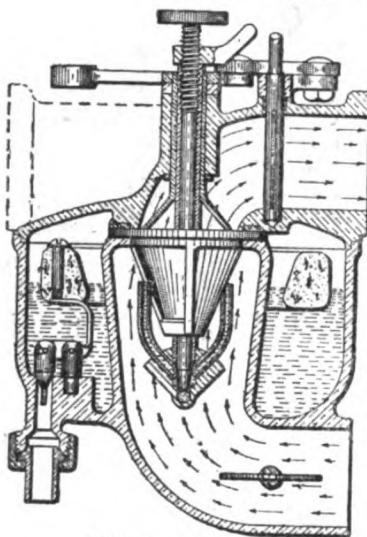
A glance at the Webster Gauge shows in inches the depth of gasoline in your tank. Do not poke dirty sticks in tank to see how much gasoline you have, or is it wise to investigate with a lighted match. Still, same is constantly being done, which has caused endless carburetor trouble, and in many cases loss of automobile, launch and lives by fire or explosions.

In ordering state depth of tank.

Price \$5.00

Original from
UNIVERSITY OF MICHIGAN

The Buffalo Carburetor



1909 Model.

The Buffalo Mechanical Carburetor is all that the name mechanical implies. Its movements are not left to chance, nor do atmospheric conditions alter its perfect working. It is positive in its action throughout its entire range from zero to full opening. Its basis being the correct principle of carburation.

The entering column of air passes the gasoline nozzles at adjustable openings in the cone valve. The cone valve and throttle are link connected and move in unison, both are adjusted to give proper mixture for low speed. As increased power of speed is desired, the cone valve and throttle are rotated by the operator, increasing the quantity of mixture admitted, while the speed of the mixture passing the nozzle is kept the same.

This feature insures a perfect mixture for all powers, prevents a greater quantity of fuel from being drawn by the motor than can be properly burned and accounts for the great economy obtained with a Buffalo Mechanical Carburetor.

The Ford Six-Cylinder car, which won the 24-hour race in Detroit, June 22nd, breaking all world's records, was equipped with a Buffalo Carburetor.

The "Haynes" Vanderbilt Cup Racer was equipped with a Buffalo. And all Thomas 1906 records were obtained with Buffalo Carburetor.

PRICES.

1 inch	\$11.50
1 1/4 inch	18.00
1 1/2 inch	15.00
1 3/4 inch	25.00
2 inch	30.00

Annealed Copper Tubing



GOODRICH

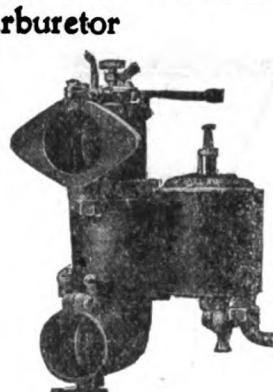
Kingston Motor-Cycle Carburetor

5/8 in. actual size
to fit 3/4 in. tubing.
Price \$12.50

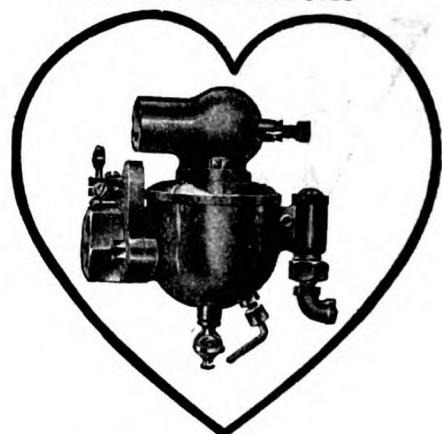
3/4 in. actual size

to fit 5/8 in. tubing.
Price \$12.50

“1/4 in. outside diameter.”
The best connection for Oil and Gasoline, will last forever; it is annealed and can be bent in any shape.
Price per foot \$0.15



Schebler Carburetor



1908
Model Same
Price as 1909.

Model D.

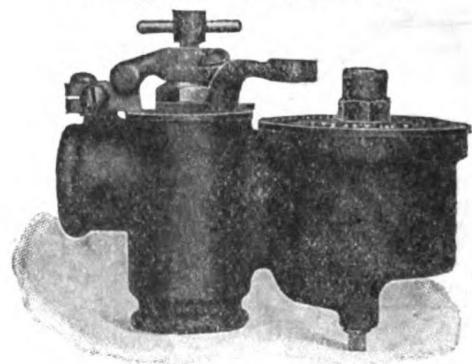
This Carburetor is so well known and has given such excellent satisfaction that a description of them is not necessary.

Price.

1 inch	\$16.00
1 1/4 inch	17.00
1 1/2 inch	22.00
1/2 inch, \$13.00	3/4 inch, \$15.00

Motorcycle Sizes:

Kingston Carburetors

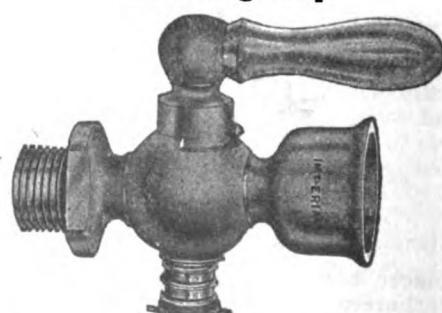


The Reliable A Type.

Price.

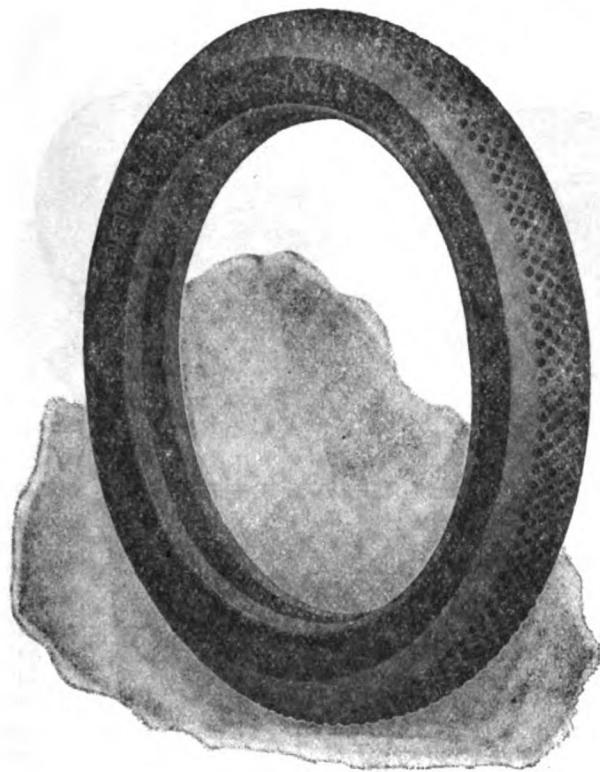
3/4 inch	\$12.50
1 inch	12.50
1 1/4 inch	15.00
1 1/2 inch	17.50
2 inch	20.00

Priming Cup



Self-seating, and will remain tight.
5/8 inch, S. P. size, price \$0.50
1/4 inch, S. P. size, price Original from 75
UNIVERSITY OF MICHIGAN

GOODRICH AUTOMOBILE TIRES

GOODRICH
MOTOR CYCLE TIRES

CORRUGATED TREAD

SIZE Inches	Complete Pair	Case Each	Tube Each
26x1 3/4	\$ 18 20	\$ 7 35	\$ 1 75
28x1 3/4	19 50	7 75	2 00
26x2	19 70	7 85	2 00
28x2	21 00	8 25	2 25
26x2 1/4	21 20	8 35	2 25
28x2 1/4	22 50	8 75	2 50
30x2 1/4	23 80	9 15	2 75
26x2 1/2	22 70	8 85	2 50
28x2 1/2	24 00	9 25	2 75
30x2 1/2	25 30	9 65	3 00

BAILEY TREAD

SIZE Inches	Complete Pair	Case Each	Tube Each
26x1 3/4	\$ 20 70	\$ 8 60	\$ 1 75
28x1 3/4	22 00	9 00	2 00
26x2	22 20	9 10	2 00
28x2	23 50	9 50	2 25
26x2 1/4	23 70	9 60	2 25
28x2 1/4	25 00	10 00	2 50
30x2 1/4	26 30	10 40	2 75
26x2 1/2	25 20	10 10	2 50
28x2 1/2	26 50	10 50	2 75
30x2 1/2	27 80	10 90	3 00

Pump and Kit Furnished Free With Every
Pair of Tires

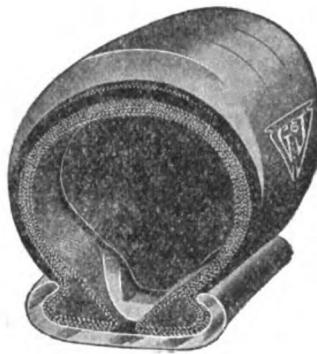
SIZE	REGULAR OR QUICK DETACHABLE ROUND OR FLAT CASE	REGULAR OR QUICK DETACHABLE BAILEY CASE	ALL TUBES
26x2 1/4	\$ 10 90		\$ 2 80
28x2 1/2	11 80		3 05
30x2 1/2	12 70		3 20
32x2 1/2	13 65		3 40
34x2 1/2	14 55		3 55
36x2 1/2	15 40		3 75
26x3	\$ 13 00	\$ 14 50	\$ 3 25
28x3	14 05	15 50	3 50
30x3	15 05	16 50	3 75
32x3	16 10	17 55	3 95
34x3	17 15	18 50	4 25
36x3	18 15	19 60	4 50
38x3	19 20	20 65	4 70
28x3 1/2	\$ 20 65	\$ 22 80	\$ 4 75
30x3 1/2	22 20	24 15	5 05
32x3 1/2	23 55	25 60	5 35
34x3 1/2	25 70	27 70	5 70
36x3 1/2	27 80	29 80	6 00
30x4	\$ 30 00	\$ 32 50	\$ 6 15
31x4	31 80	33 25	6 40
32x4	32 25	34 75	6 55
33x4	33 45	35 90	6 70
34x4	34 50	36 80	6 90
36x4	36 75	39 15	7 25
38x4	38 95	41 40	7 65
40x4	41 20	43 30	8 00
42x4	43 35	45 85	8 35
30x4 1/2	\$ 38 50	\$ 41 50	\$ 7 60
32x4 1/2	41 15	44 10	8 05
34x4 1/2	43 75	46 70	8 50
36x4 1/2	46 35	49 80	9 00
38x4 1/2	48 95	52 00	9 50
40x4 1/2	51 55	54 45	10 00
42x4 1/2	54 20	57 15	10 45
34x5	\$ 58 90	\$ 57 55	\$ 10 05
36x5	56 95	60 65	10 60
38x5	60 05	63 65	11 15
40x5	63 15	66 85	11 65
42x5	66 20	71 90	12 25
36x5 1/2	\$ 66 50	\$ 70 90	\$ 11 95
38x5 1/2	70 20	74 60	12 60
40x5 1/2	74 00	78 40	13 15
42x5 1/2	77 75	82 20	13 80
28x3 1/2	\$ 16 80	\$ 18 45	\$ 4 60

31x4 in. fits a 30x3 1/2 in. rim.

33x4 in. fits a 32x3 1/2 in. rim.

Retreading Casings, Prices on Application.

Original from
UNIVERSITY OF MICHIGAN



Regular Clincher



Quick Detachable Clincher or Dunlop



G. & J. TIRES

CLINCHER, DUNLOP AND QUICK DETACHABLE

Size	Regular Round Tread Casing	Inner Tube	Tire Complete	Bailey Tread Casing
*30x2½	\$12.70	\$3.20	\$15.90	.....
28x3	14.05	3.50	17.55	\$15.50
30x3	15.05	3.75	18.80	16.50
*32x3	16.10	3.95	20.05	17.55
30x3½	22.20	5.05	27.25	24.15
32x3½	23.55	5.35	28.90	25.60
34x3½	25.70	5.70	31.40	27.70
36x3½	27.80	6.00	33.80	29.80
30x4	30.00	6.15	36.15	32.50
31x4	31.80	6.40	38.20	33.25
32x4	32.25	6.55	38.80	34.75
33x4	33.45	6.70	40.15	35.90
34x4	34.50	6.90	41.40	36.80
36x4	36.75	7.25	44.00	39.15
34x4½	43.75	8.50	52.25	46.70
36x4½	46.35	9.00	55.35	49.30
34x5	53.90	10.05	63.95	57.55
36x5	56.95	10.60	67.55	60.65

NOTE—Sizes marked * not made in Dunlop or Quick Detachable Clincher Tires.

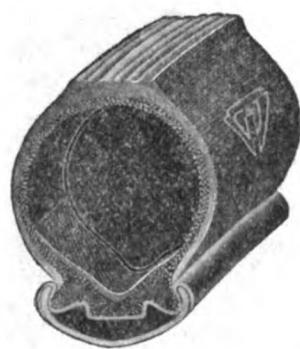
G. & J. MOULDED MOTORCYCLE TIRES



"Corrugated Tread"



"Bailey Tread"



"Raised Tread"

Size	Case Each	Tube Each	Tires Pair	Size	Case Each	Tube Each	Tires Pair	Size	Case Each	Tube Each	Tires Pair
26x1 3/4	\$7.65	\$2.05	\$19.40	26x1 3/4	\$9.45	\$2.05	\$23.00	26x1 3/4	\$7.65	\$2.05	\$19.40
26x2	8.10	2.25	20.70	26x2	9.90	2.25	24.30	26x2	8.10	2.25	20.70
26x2 1/4	8.75	2.50	22.50	26x2 1/4	10.55	2.50	26.10	26x2 1/4	8.75	2.50	22.50
26x2 1/2	9.45	2.95	24.80	26x2 1/2	11.25	2.95	28.40	26x2 1/2	9.45	2.95	24.80
28x1 3/4	7.65	2.50	20.30	28x1 3/4	9.45	2.50	23.90	28x1 3/4	7.65	2.50	20.30
28x2	8.35	2.70	22.10	28x2	10.15	2.70	25.70	28x2	8.35	2.70	22.10
28x2 1/4	9.00	2.70	23.40	28x2 1/4	10.80	2.70	27.00	28x2 1/4	9.00	2.70	23.40
28x2 1/2	9.90	3.15	26.10	28x2 1/2	11.70	3.15	29.70	28x2 1/2	9.90	3.15	26.10
30x1 3/4	8.75	2.50	22.50	30x1 3/4	10.60	2.45	26.10	30x1 3/4	8.75	2.50	22.50
30x2	9.00	2.70	23.40	30x2	10.80	2.70	27.00	30x2	9.00	2.70	23.40
30x2 1/4	9.25	2.90	24.30	30x2 1/4	11.00	2.95	27.90	30x2 1/4	9.25	2.90	24.30
30x2 1/2	10.35	3.40	27.50	30x2 1/2	12.15	3.40	31.10	30x2 1/2	10.35	3.40	27.50

MOTORCYCLE STEEL RIMS

1 1/4 or 2 inch, single or double clincher. Each \$1.40 2 1/4 or 2 1/2 in., single or double clincher. Each \$1.50
 Steel rims will be drilled at a charge of 25 cents per rim extra.

G. & J. Motor Cycle Valve.....Each \$0.15 Tire Sleeve (outside).....Each \$0.60
 G. & J. Repair Kit.....Each .50 Tire Sleeve (inside).....Each .25
 G. & J. Telescopic Pump.....Each .50 Rough Rider Grips.....Pair 2.00

Motorcycle Stand



It is light yet very strong; has broad base which will stand up under any test.

Price \$8.50

FILL GUM



BUMPER

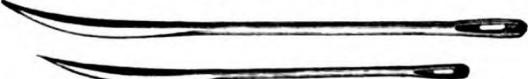


Each.

For filling digs, deep cuts, blisters, etc., in the casing.
 Price \$0.50

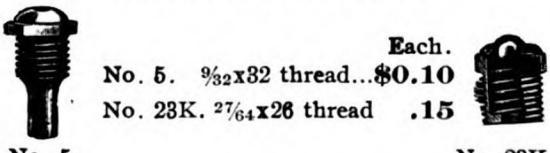
No. 1, 1 1/4 in. \$1.00
 No. 2, 1 1/2 in. 1.50
 No. 3, 1 3/4 in. 2.00
 No. 4, 2 in. 2.25

PACK NEEDLES



Price, each \$0.05

BALL CHECK OIL CUPS



Each.

No. 5. 9/32x32 thread... \$0.10
 No. 23K. 27/64x26 thread .15



No. 23K.

EMPIRE TIRES

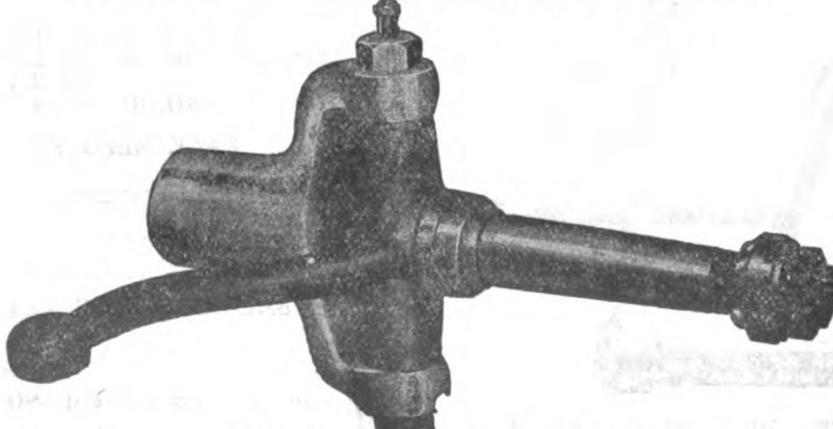


SIZES	Cases	Cases Bailey Tread	Gray Tubes	Red Tubes
	Raised Tread Round Tread			
28 x 2 1/4	\$12 80	\$14 30	\$ 3 30	\$ 4 00
30 x 2 1/2	13 80	15 .0	3 50	4 20
26 x 3	14 15	15 65	3 55	4 25
28 x 3	15 25	16 75	3 80	4 55
30 x 3	16 40	17 90	4 05	4 90
32 x 3	17 50	19 00	4 30	5 20
34 x 3	18 65	20 15	4 65	5 55
36 x 3	.....	.....	4 90	5 90
28 x 3 1/2	22 45	24 45	5 20	6 25
30 x 3 1/2	24 15	26 15	5 50	6 65
32 x 3 1/2	26 65	27 65	5 80	7 00
34 x 3 1/2	27 95	29 95	6 20	7 45
36 x 3 1/2	30 25	32 25	6 50	7 80
30 x 4	32 65	35 15	6 70	8 00
31 x 4	33 90	36 40	6 95	8 30
32 x 4	35 05	37 55	7 15	8 55
33 x 4	36 30	38 80	7 30	8 75
34 x 4	37 50	40 00	7 50	9 00
35 x 4	39 95	42 45	7 90	9 45
38 x 4	42 40	44 90	8 30	10 00
40 x 4	44 80	47 30	8 70	10 45
32 x 4 1/2	44 75	47 75	8 75	10 50
34 x 4 1/2	47 55	50 55	9 25	11 15
36 x 4 1/2	50 40	53 40	9 80	11 75
34 x 5	58 55	62 30	10 95	13 15
35 x 5	60 25	64 00	11 25	13 50
36 x 5	61 95	65 70	11 50	13 80
650 x 65	.....	.....	3 05	3 70
700 x 65	.....	.....	3 30	4 00
750 x 65	.....	.....	3 50	4 20
700 x 85	.....	.....	4 55	5 50
750 x 85	.....	.....	4 80	5 75
800 x 85	.....	.....	5 05	6 05
760 x 90	24 15	26 15	5 50	6 65
810 x 90	25 65	27 65	5 80	7 00
870 x 90	27 95	29 95	6 20	7 45
910 x 90	30 25	32 25	6 50	7 80
815 x 105	35 05	37 55	7 15	8 55
875 x 105	37 50	40 00	7 50	9 00
915 x 105	39 95	42 45	7 90	9 45
850 x 120	44 75	47 75	8 75	10 50
880 x 120	47 55	50 55	9 25	11 15
920 x 120	50 40	53 40	9 80	11 75
935 x 135	65 25	69 00	12 15	14 55

NOTE. — 31 x 4 Tires fits 30 x 3 1/2 Rim
 33 x 4 " " 32 x 3 1/2 "
 35 x 5 " " 34 x 4 1/2 "

Regular and Quick Detachable, Raised or Round Tread Cases, same prices.

DROP FORGED AXLE ENDS and STEERING KNUCKLE



Price, axle end (or yoke)..... Each \$2.00
 Price, steering knuckle..... " 2.00

Above parts are not machined.

Price, Cadillac axle end machine.... Each \$2 50
 Cadillac Sprockets 31-38-41 tooth..... 5.00

Original from
 UNIVERSITY OF MICHIGAN

FISK TIRES



Bolted—On
(Mechanically Fastened)
Heavy Car Type

Size	Plain Tread Casing	Bailey Tread Casing	Flat Tread Casing	Tube
3 x28	20.00	.....	.....	4.00
30	21.25	.....	.....	4.25
3½ x28	23.30	.....	.....	4.70
30	24.75	.....	.....	5.00
3½ x28	28.85	.....	.....	5.40
30	30.70	32.70	32.70	5.80
32	32.55	34.55	34.55	6.20
34	34.40	36.40	36.40	6.80
36	36.25	.....	.....	7.00
4 x30	33.90	37.90	37.90	7.10
31*	35.40	39.40	39.40	7.40
32	36.40	40.40	40.40	7.60
33†	37.90	.....	.....	7.90
34	38.90	42.90	42.90	8.10
36	41.40	45.40	45.40	8.60
40	46.40	.....	.....	9.60
4½ x32	48.50	51.50	51.50	9.25
34	49.40	54.40	54.40	9.85
36	52.30	57.30	57.30	10.45
5 x34	62.00	.....	.....	11.50
36	65.50	71.50	71.50	12.25
38	69.00	.....	.....	13.00
40	72.50	.....	.....	13.75
5½ x38	81.00	.....	.....	14.75
6 x40	96.00	.....	.....	17.00

Prices subject to change without notice.

* Fits 3½" x30" Rims. † Fits 3½" x32" Rims.

FISK TIRES
Regular Clincher
Heavy Car Type

Size	Plain Tread Casing	Bailey Tread Casing	Flat Tread Casing	Tube
3 x28	16.50	.....	.....	4.00
30	17.75	.....	.....	4.25
32	19.00	.....	.....	4.50
34	20.25	.....	.....	4.75
3½ x30	23.70	26.70	26.70	5.80
32	25.55	28.55	28.55	6.20
34	27.40	30.40	30.40	6.60
36	29.25	.....	32.25	7.00
4 x30	31.40	35.40	35.40	7.10
31*	32.90	38.90	38.90	7.40
32	33.90	37.90	37.90	7.60
33†	35.40	39.40	39.40	7.90
34	36.40	40.40	40.40	8.10
35‡	37.90	.....	.....	8.40
36	38.90	42.90	42.90	8.60
40	43.90	.....	.....	9.60
4½ x32	43.50	48.50	.....	9.25
34	46.40	51.40	51.40	9.85
36	49.30	54.30	54.30	10.45
5 x34	57.00	.....	.....	11.50
35‡	59.10	.....	.....	11.95
36	60.50	66.50	66.50	12.25
37||	62.60	.....	.....	12.70

Prices subject to change without notice.

* Fits 3½" x30" Rims. ‡ Fits 4½" x34" Rims.

† Fits 3½" x32" Rims. || Fits 4½" x36" Rims.

‡ Fits 3½" x34" Rims.

Fisk Bolts complete for
Bolt-on Tires

2½, 3 and 3½ inch	.....	Each	\$0.10
3½ or 4 inch	.....	"	.10
4½ inch	.....	"	.15
5 inch	.....	"	.15
5½ inch	.....	"	.20
6 inch	.....	"	.20

Fisk Rings

2½, 3 and 3½ in. Per set of eight	.....	\$5.80
3½ inch	" " " "	8.50
4 inch	" " " "	8.82
4½ inch	" " " "	11.00
5 inch	" " " "	11.00
5½ inch	" " " "	12.00
6 inch	" " " "	12.00

Fisk Rims

2½, 3 and 3½ in. Per set of four	.....	\$3.20
3½ inch	" " " "	4.50
4 inch	" " " "	4.50
4½ inch	" " " "	7.00
5 inch	" " " "	7.00
6 inch	" " " "	8.00

Fisk Bolt Ratchet Wrench..... 0.50

HARTFORD TIRES



Dunlop, Clincher and Quick Detachable

Size	Reg. Round Tread Casing	Midgley Tread	Bailey Tread	All Tubes
28x2½	\$11.85		\$12.95	\$2.95
28x2½	12.30		13.25	3.20
30x2½	18.25		14.80	3.35
26x8	18.55	\$17.00	15.10	3.40
28x8	14.65	18.80	16.20	3.65
30x8	15.70	19.80	17.20	3.90
32x8	18.80	21.00	18.80	4.15
34x8	17.90	22.85	19.35	4.45
36x8	18.95	23.70	20.45	4.70
28x3½	21.55	26.95	23.60	5.00
30x3½	23.15	28.90	25.20	5.80
32x3½	24.60	30.60	26.70	5.80
34x3½	26.80	33.55	28.90	5.95
36x3½	29.05	36.80	31.15	6.25
30x4	31.80	39.15	33.90	6.40
31x4	32.50	40.60	35.05	6.65
32x4	38.65	42.05	36.25	6.85
33x4	34.85	43.55	37.45	7.00
34x4	36.00	45.00	38.40	7.20
36x4	38.35	47.95	40.85	7.55
32x4½	42.95	53.70	46.00	8.40
34x4½	45.65	57.05	48.75	8.90
36x4½	48.35	60.50	51.45	9.40
34x5	58.20	70.25	60.05	10.50
36x5	59.45	74.35	63.30	11.05

Hartford Single Tube Tires

28x2½	Each	\$11.95	28x3½	Each	\$26.45
28x2½	"	12.80	30x3½	"	27.70
30x2½	"	18.85	32x3½	"	29.00
26x8	"	17.00	30x4	"	31.50
28x8	"	17.65	32x4	"	34.00
30x8	"	20.15	34x4	"	36.50
			36x4	"	39.00

MORGAN & WRIGHT TIRES



Dunlop, Clincher & Quick Detachable

Size	Regular Round Tread Casing	Bailey Tread Casing	Heavy Flat Tread Casing	Any Style Tube
28x2½	\$11.80	\$.....	\$12.85	\$3.05
28x3	14.05	15.50	14.70	3.50
30x3	15.05	16.50	15.75	3.75
32x3	16.10	17.55	16.85	3.95
28x3¼	17.95	19.65	18.80	4.60
28x3½	20.65	22.60	21.60	4.75
30x3½	22.20	24.15	23.15	5.05
32x3½	23.55	25.60	24.85	5.35
34x3½	25.70	27.70	26.95	5.70
36x3½	27.80	29.80	29.20	6.00
30x4	30.00	32.50	31.45	6.15
31x4	31.15	33.65	32.65	6.40
32x4	32.25	34.75	33.80	6.55
33x4	33.45	35.90	35.00	6.70
34x4	34.50	36.80	36.15	6.90
36x4	36.75	39.15	38.45	7.25
40x4	41.20	43.80	43.20	8.00
32x4½	41.15	44.10	43.15	8.05
34x4½	43.75	46.70	45.85	8.50
36x4½	46.35	49.30	48.55	9.00
34x5	53.90	57.55	56.45	10.05
36x5	56.95	60.65	59.65	10.60

Morgan & Wright Motor Cycle Tires
Single or Double Clinch

Casing Corrugated or Basket Weave	Tube Endless or Butt End	Tires Complete
Each	Each	Pair
28x2¼ in. \$8.75	\$2.50	\$22.50
28x2½ " 9.45	2.95	24.80
28x2 " 8.35	2.70	22.10
28x2¼ " 9.00	2.70	23.40
28x2½ " 9.90	3.15	26.10
Bailey or Tourist Type		
26x2¼ in. \$10.55	\$2.50	\$26.10
26x2½ " 11.25	2.95	28.40
28x2 " 10.15	2.70	25.70
28x2¼ " 10.80	2.70	27.00
28x2½ " 11.70	3.15	29.70

CONGRESS TIRE PROTECTOR



Made of heavy, tough, chrome tanned hide, with lace. Will stand rough usage.

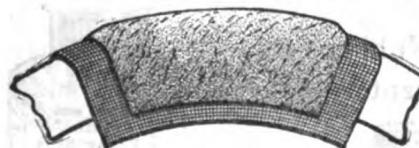
No. 1 For 2½ or 3 in. Tire, price	\$1.25
No. 2 For 3½ or 4 in. Tire, price.....	1.50
No. 3 For 4½ or 5 in. Tire, price.....	2.00

PIG SKIN TIRE PROTECTORS

Are made of heavy Pig-Skin, they will stand a great amount of service.

No. 1 For 2½ or 3 in. Tire, price.....	\$1.00
No. 2 For 3½ or 4 in. Tire, price.....	1.25
No. 3 For 4½ or 5 in. Tire, price.....	1.50

HOLDTITE PLASTER

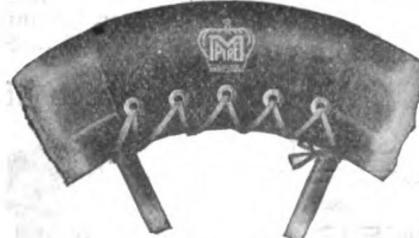


Blow-out Pad.

Consists of several layers of heavy fabric covered with rubber and vulcanized; they stay where you place them, as the canvas lining extends over bead of tire and is clinched under rim when tire is inflated.

No. 1 For 2½ or 3 in. Tire, price.....	\$0.60
No. 2 For 3½ or 4 in. Tire, price .....	.90
No. 3 For 4½ or 5 in. Tire, price.....	1.25

EMPIRE TIRE PROTECTOR

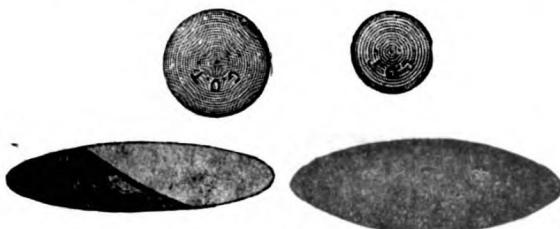


Is invaluable in case of a blow-out. Many a blow-out is prevented by placing a protector over a tire that is on the point of developing a break in the fabric.

Made of same material as our outer casing.

No. 1 For 2½ or 3 in. Tire price.....	\$1.50
No. 2 For 3½ or 4 in. Tire, price	1.75
No. 3 For 4½ or 5 in. Tire, price	2.00

RUBBER PATCHES AND VALVE BASE



These patches are made from red rubber of the best quality, and are formed with tapered edges, which act in perfect harmony with the tube. They are rough on the underside, and are non-blooming, so that there is no necessity for buffing before using.

	Each	Doz.
No. 1 1½ in. Round.....	\$0.05	\$0.55
No. 2 2 in. Round.....	.06	.65
No. 4 2½ in. Round.....	.10	1.10
No. 5 3¼ in. Round .....	.10	1.10
No. 6 2 x 4½ in. Oval .....	.10	1.10
No. 8 2¾ x 6¾ in. Oval .....	.15	1.70
No. 9 3¾ x 6¾ in. Oval .....	.20	2.25
Inner Tube Valve Base.....		.25

TIRE REPAIR PAD



This pad is intended to be placed inside the outer casing when the fabric is broken. It should always be used in connection with a Tire Protector; it will prevent damage to the tube through coming in contact with the broken fabric.

No. 1 For 2½ and 3 in. Tires, price	\$0.75
No. 2 For 3½ and 4 in. Tires, price.....	.75
No. 3 For 4½ and 5 in. Tires, price.....	.75

TIRE PRESERVER



Is made of four thicknesses of fabric, and vulcanized with rubber the same as an outer casing; is inserted between outer casing and inner tube, thus giving full supporting power independently of weak spots or breaks in the casing.

28 x 3	Price, each	\$4.85
30 x 3	Price, each	5.20
30 x 3½	Price, each	5.40
32 x 3½	Price, each	5.75
32 x 4	Price, each	7.50
34 x 4	Price, each	8.00
34 x 4½	Price, each	9.50

Acid-Cure Outfit



**ACID CURE SOLUTION
AND FLUID
THE WORLD'S BEST**

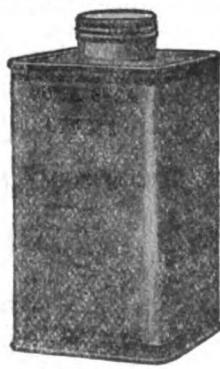
It makes the repair permanent and produces the same effect as vulcanization, instantly. The acid cures the cement to parts united and makes parts one solid piece. Put up expressly for tool kit.

Price, complete outfit ...\$1.00

Hartford Cements



"Solution"



"Quick Seal"

These cements are so well known that a description of them is not necessary.

	½ Pt.	1 Qt.	1 Gal.
Quick Seal.....	\$0.75	\$1.75	\$6.25
Solution.....	.50	1.35	5.00

	½ pint can	1 pint can
A good Rubber Cement	\$0.20	.75

M. & W. Hard Cement



1 lb. cake, price.....\$0.50

Parks
Rubber Cement

**F. B. PARKS
RUBBER CEMENT**

THE CEMENT THAT HEAT DOES NOT EFFECT
Contains no acid—it practically vulcanizes the rubber without heat—used in all kinds of repairing
**AUTO-TUBES & CASINGS
CYCLE REPAIRING
RUBBER BOOTS TAPS & HEELS
HOT WATER BAGS, ETC.**
GUARANTEED

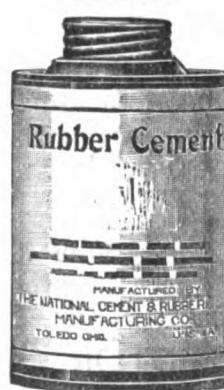
M. & W.
Quick Repair Cement

An excellent patching cement.
Price, $\frac{1}{2}$ pint can.....\$0.45

Eureka Cement



B. M. Rubber Cement



Never Creep Hard Cement



1 lb. cake, price.....\$0.50

Goodrich Jiffy



Small tube, each	\$0.05
Large tube, each	.10
$\frac{1}{4}$ pint can	.25
$\frac{1}{2}$ pint can	.50
1 pint can	.90

Original from
UNIVERSITY OF MICHIGAN

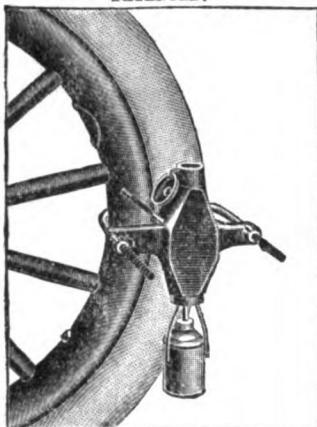
STITCH-IN-TIME VULCANIZER.

ANYBODY CAN USE IT.

Fully guaranteed to do as represented or money refunded, providing instructions are followed and nothing but first-class material is used.

PATENTED.

Price of Cast-Iron Vulcanizer, complete,
F. O. B. Topeka, Kansas,
U. S. A., \$6.00 Net.



Price of Aluminum Vulcanizer, complete,
F. O. B. Topeka, Kansas,
U. S. A., \$7.00 Net.

Iron vulcanizer weighs 6 lbs.; aluminum weighs 4 lbs., boxed.

Will vulcanize a patch $2\frac{1}{2}$ by $3\frac{1}{2}$ inches on any size tire from $2\frac{1}{2}$ to 5 inches.

"Aluminum only in stock."

They do not require an expert to operate them and get good results; just what you want for tread cuts, which if let run will form blisters and finally loosen rubber from fabric.

Price, complete \$7.00

Price, extra Thermometer 1.00

Extra Supplies.

Price

$\frac{1}{2}$ Pt. Vulcanizing Cement \$.45

1 Pt. Vulcanizing Cement85

1 Qt. Vulcanizing Cement 1.60

1 Gal. Vulcanizing Cement 6.00

Raw Stock (Gum Rubber) lb 3.00

Friction Duck, 9 in. wide, per yd 2.00

Patching Rubber, 1st grade, per lb 3.00

Valve Cot (or base), each25

Goodrich Vulcanizing Cement No. 434.



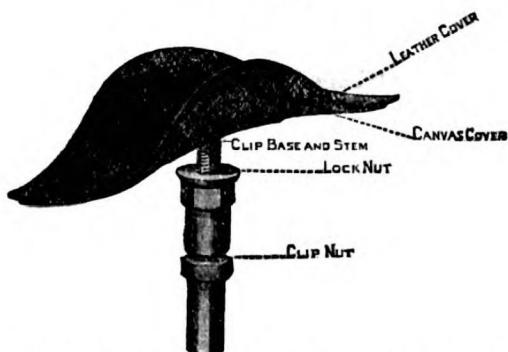
A Shop Repair Cement used in connection with Vulcanizers.

Recognized by the trade as a dependable vulcanizing cement of the first grade.

Sizes and Prices.

$\frac{1}{4}$ pint Cans	each	\$0.25
$\frac{1}{2}$ pint Cans	each	.45
1 pint Cans	each	.85
1 quart Cans	each	1.60
1 gallon Cans	each	6.00

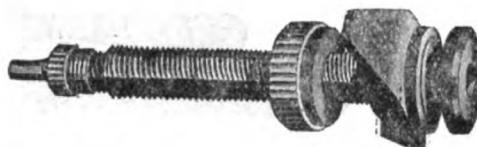
TIRE CLIP



This Clip is designed to hold the base of the tire securely to steel rim. In ordering state size of tire.

Price, each \$0.50

AUTO VALVES



No. 777 for $2\frac{1}{2}$ and 3 in. Tubes \$0.40

No. 725 for $3\frac{1}{2}$, 4, $4\frac{1}{2}$ and 5 in. Tubes50

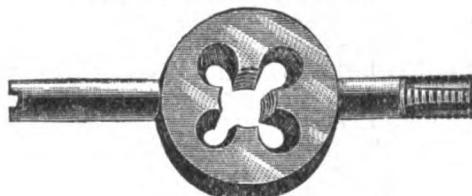
Valve encased in Rubber Stem60

Valve Insides, each, \$0.10, doz 1.00

Valve Caps, each \$0.05, doz50

Valve Cap Washers, 3 for05

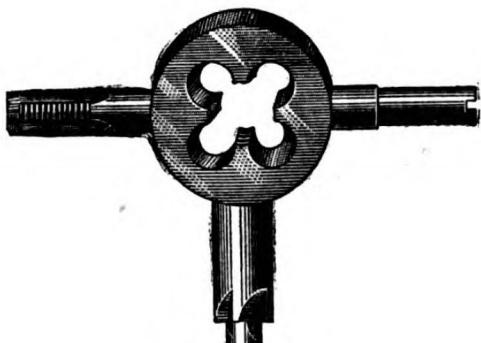
AUTO VALVE TOOLS



"Three in One"

"Esco," Price \$0.50

"Hueston's," Price 1.00



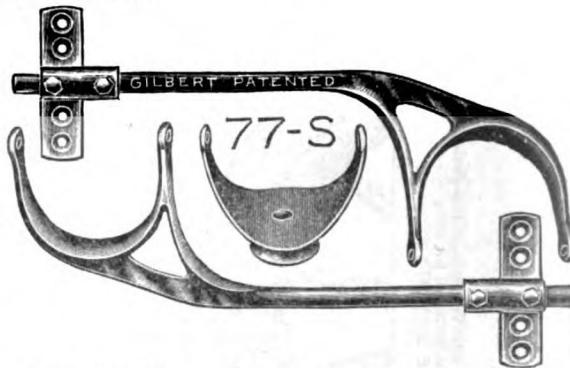
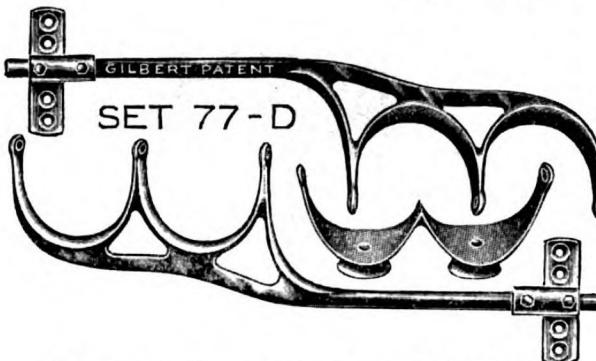
"Four in One"

"Esco," Price \$0.75

"Eureka," Price 1.25

SINGLE AND DOUBLE TIRE HOLDERS

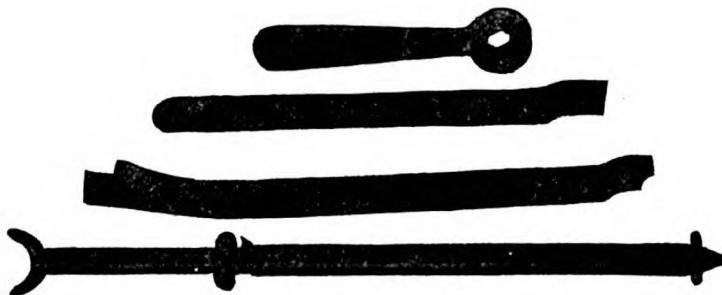
Solid Brass, Highly Polished.



The most convenient and ideal device for carrying extra tires; the arms are made long enough so that purchaser can cut them off to the desired length. Set consists of three pieces with good strong straps.

Price per set.....\$10.00 Price per set.....\$8.00

TIRE TOOLS



Set contains Tire Lug, Ratchet Wrench, Small Tire Detacher, Large Tire Detacher, and Wheel Brace. For applying and detaching Clincher Tires, absolutely reduce the time to a minimum where it is no longer a dreaded occurrence, but instead an easy, quick and satisfactory method of performing what has hitherto been a disagreeable task.

Price, Complete Set.....\$2.70

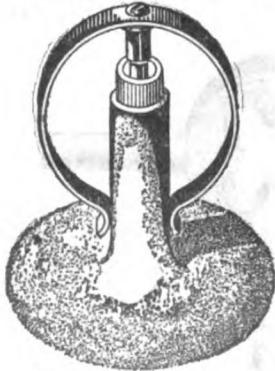
Price, Ratchet Wrench only.....0.45

Price, Small Tire Detacher.....0.55

Price, Wheel Brace.....1.15

Price, Large Tire Detacher.....0.55

AUTOMATIC TIRE DEFLATOR



Simply press the little instrument into valve, and it deflates your tire automatically.

Price\$0.11

TINNED WIRE



No. 28 for fastening pump connections, etc., $\frac{1}{4}$ -lb. spool.

Price\$0.25

SOAPSTONE

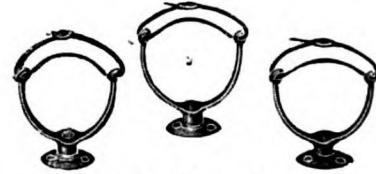


For sprinkling in Double Tube Tires. Keeps tube from chafing and sticking.

1 lb. bag, Ea. \$0.10

5 lb. bag, Ea. 0.45

CONGRESS TIRE HOLDERS



No. 1002. Are strong, light and neat. Made of solid brass. Set consists of three pieces, with straps as shown in cut.

Price, set\$2.25

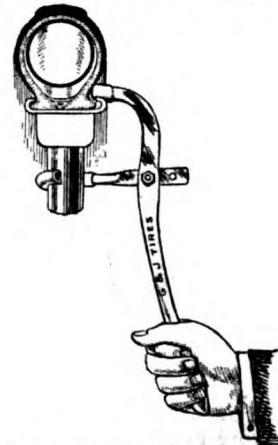
FRENCH TIRE CHALK



A special selected chalk packed in a neat sifting top can.

1-lb. can, price.....\$0.20

RELEASING TIRE TOOLS



The purpose of this tool is to release from the rims, tires which have been on so long that they have become fairly set to rim. No matter how firmly it is seated in the rim it can easily be removed.

Price Original from\$1.50

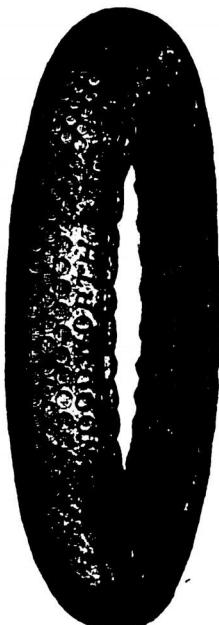
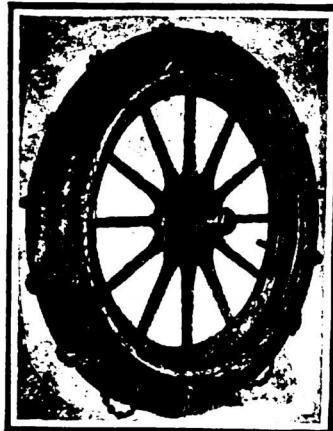
WHITTAKER TIRE CHAINS

A practical insurance against accident

28 x 2½	Price Pair	\$5.00	34 x 8	Price Pair	\$9.50
28 x 8	"	6.50	34 x 8½	"	9.50
28 x 8½	"	6.50	34 x 4	"	9.75
30 x 2½	"	5.50	34 x 4½	"	10.00
30 x 8	"	7.00	34 x 5	"	10.50
30 x 8½	"	7.00	36 x 3	"	9.75
30 x 4	"	8.50	36 x 3½	"	10.00
30 x 4½	"	8.50	36 x 4	"	10.00
32 x 8	"	8.00	36 x 4½	"	10.50
32 x 8½	"	8.50	36 x 5	"	11.00
32 x 4	"	9.00	38 x 4½	"	12.00
32 x 4½	"	9.00	38 x 5	"	12.00

CROSS CHAINS

For 2½ in. Tires Each \$0.05 For 4 in. Tires Each \$0.09
 For 8 in. Tires Each .07 For 4½ in. Tires Each .10
 For 8½ in. Tires Each .08 For 5 in. Tires Each .12



Woodworth Detachable Tread

[A protector for pneumatic tires, made of chrome leather and canvas, with steel studs in the middle to prevent skidding and take the wear of the road; it prevents punctures and cuts that allow moisture and dirt to get under the rubber and rot the fabric. A new tire fitted with a Woodworth Tread well last at least three times as long as if run bare; for retreading old tires it has no equal. On snow, mud, sand or wet pavements the studs take hold and prevents skidding and slipping; since the treads are suitable for all kinds of roads, it is never necessary to remove them, and if the user comes unexpectedly on a slippery place he is prepared.

28 x 2½	Each	\$8.00	34 x 8	Each	\$13.00
28 x 8	"	10.00	34 x 8½	"	16.00
28 x 8½	"	12.25	34 x 4	"	18.00
30 x 2½	"	9.00	34 x 4½	"	19.75
30 x 8	"	11.00	34 x 5	"	21.00
30 x 8½	"	13.50	36 x 3	"	14.00
30 x 4	"	15.00	36 x 3½	"	17.25
32 x 8	"	12.00	36 x 4	"	19.50
32 x 8½	"	14.75	36 x 4½	"	21.50
32 x 4	"	16.50	36 x 5	"	23.00



The U. S. Spare Wheel

They are light, yet very strong, without felloes, spokes or hubs; they save trouble of repairing punctures, blow-outs, replacing tires or of even touching a deflated tire while automobiling in city, town or country; wheel should be carried with tire fully inflated on the side or rear of Automobile the same as a spare or extra tire; in case of an accident to a tire it is only necessary to take the spare wheel, place the stationary clamp in position over the rim of automobile wheel, move machine forward about a foot until the second stationary clamp is in position over the rim of wheel, then press the two locking clamps into place with the hand or foot; the spare wheel is then snug up against and very securely fastened to the automobile and will not come off or loosen.

For 28 or 30 inch Tires, Price each..... \$18.00
 For 32 " " " " 19.00
 For 34 " " " " 20.00
 For 36 " " " " 22.00

Add \$1.00 net extra for quick detachable tires.

TIRE COVER



Gordon's is cut and shaped to fit perfectly all sides of the tire, the only fastening necessary is at the ends. Made of best waterproof enameled black duck.

Price, any size.....\$3.50

Gilbert's coiled wire edge Cover.. 4.00

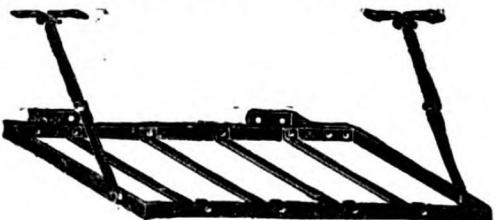
No. 2. TRUNK RACK



Is a double or folding rack, folds into itself and then back against car so that arms do not protrude, size $17\frac{1}{2} \times 28\frac{1}{2}$ inches.

Price (Enameled Black).....\$10.00

No. 1. TRUNK RACK



Is a plain, single carrier, folds up flat against car when not in use, made of $\frac{3}{16} \times 1\frac{1}{8}$ inch steel, well riveted, size $16 \times 3\frac{1}{4}$ inches.

Price (Enameled Black).....\$8.00

TIRE TRUNK



Is made to fit inside the extra tire that is carried on cars.

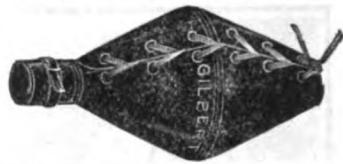
No. 803, suitable for 30 or 32 in. tire, 9 in. deep.

Price.....\$12.00

No. 804, suitable for 34 or 36 in. tire, 9 in. deep.

Price.....\$12.00

Universal Joint Boot



No. 2. Heavy Black Leather
Price\$1.50

Starting Handle Holder



Can be adjusted to hold starting crank in any desired position, made of heavy leather.

Price.....\$1.00

End Thrust Boot



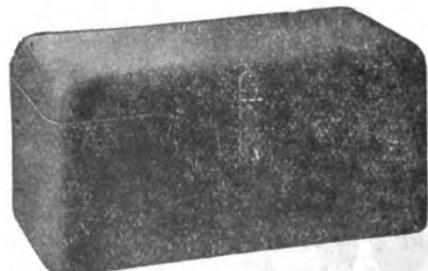
Made of heavy black leather.
Price.....\$1.00

Knuckle Boot.



For Cross Rod Bearings.
Heavy Black Leather, price \$1.00

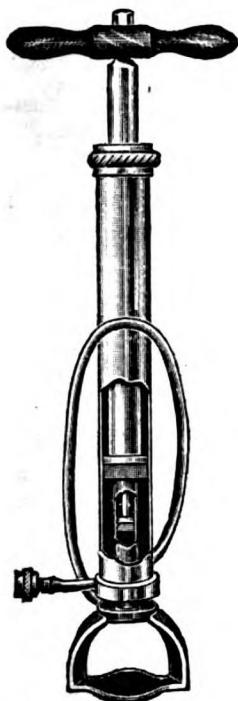
METAL TOOL BOXES



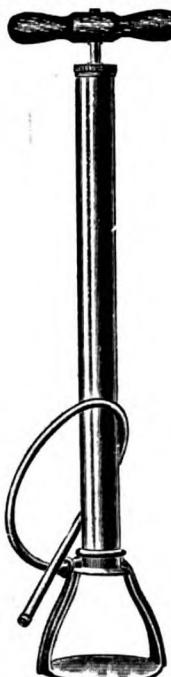
Made of best material throughout, enamel baked on, they are equipped with pressed covers, being very strong and can be used as step on running board if necessary.

	Inside Measurements.	Price
B.	$18 \times 8 \times 8$ inches.....	\$5.00
B.T.	$18 \times 10 \times 9$ inches.....	5.00
W.	$24 \times 10 \times 9$ inches.....	5.50

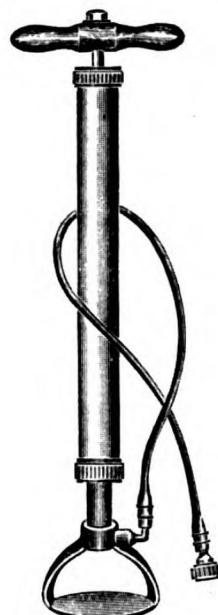
Original from
UNIVERSITY OF MICHIGAN

"EUREKA"**Triplex Pump.**

This is one of the most powerful and easiest working pumps on the market. 90 pounds can be compressed with ease.
Price \$6.00

"FLOOR PUMP"

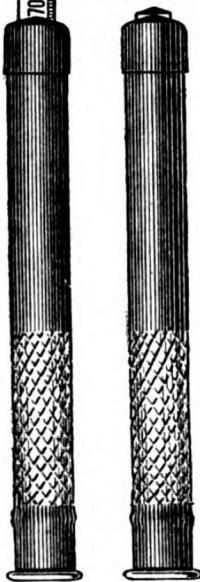
No. 102, size $1\frac{1}{2} \times 20$ in.
Heavy steel cylinder.
Price \$1.75

"COLUMBIA"

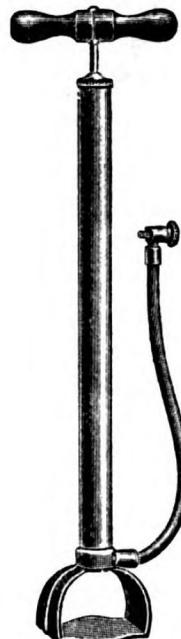
Composed of two cylinders one inside the other, which delivers a very high pressure.

Price \$5.00

No. 17. TIRE PUMP size $12 \times 1\frac{1}{4}$ in. Price \$0.50

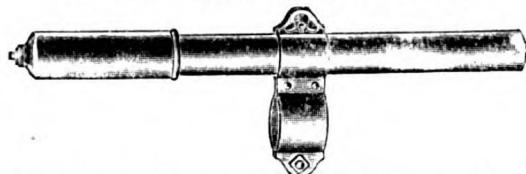
**No. 1,
TIRE
AIR
GAUGE**

Simply unscrew valve cap and press Gauge down on valve. Immediately the plunger will register the number of pounds pressure in your tire; it is only three and a half inch long.
Price \$1.50

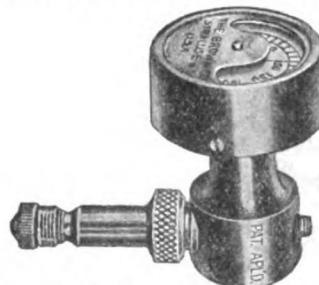
"RED DEVIL"

No. 80, size $1\frac{1}{4} \times 20$ in.
Steel, Brass Plated.
Price \$1.75

No. 68, size $1\frac{1}{4} \times 20$ in.
Brass, Nickel Plated.
Price \$1.75

Motor Cycle Frame Pump

Clamps to frame and is always ready for use. $10\frac{1}{4} \times 13-16$ in. Price \$0.75

Brown Pressure Gauge

A positive method of accurately determining pounds inflation carried in Pneumatic Tires.

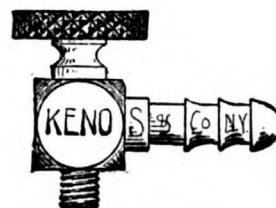
Tire expense is the biggest item the motorist has to contend with. Still properly inflating tires is never thought of, regardless of the Tire Manufacturers' cry to KEEP YOUR TIRES PROPERLY INFLATED and you will cut your tire expense in two. With this little instrument you can always keep your tires properly inflated.

Price \$3.00

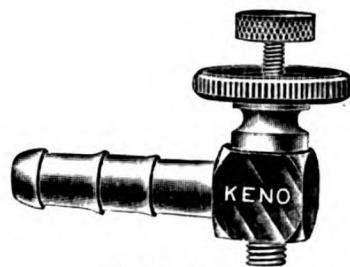
TIRE PUMP SUPPLIES



"ECLAIR"
Press it on, That's All.
Price.....\$0.50
Extra Rubber Washer.....15



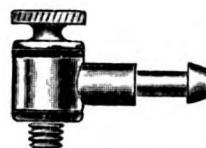
KENO No. 1
Price.....\$0.15



KENO No. 3
Will Hold Valve Open if Needed
Price.....\$0.35



PERFECTION COUPLING
Price.....\$0.25



ANGULAR
Price.....\$0.15



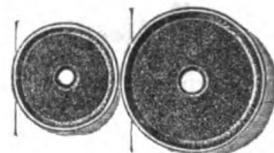
"BULL DOG"
Price.....\$0.25



BEST
Price.....\$0.20

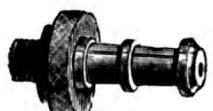


STAR
Price.....\$0.20

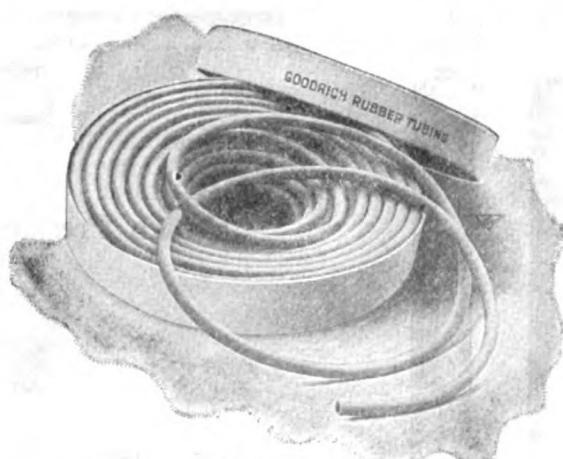


PUMP LEATHERS

	Each	Doz.
For $\frac{3}{8}$ in. Pump	\$0.05	\$0.50
" 1 "	.05	.50
" 1 $\frac{1}{4}$ "	.08	.75
" 1 $\frac{3}{4}$ "	.08	.75
" 2 "	.15	1.50
" 3 "	.20	2.25
" 4 "	.60	



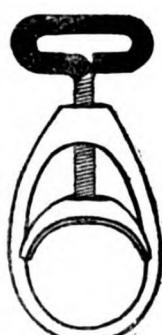
K. SWIVEL
Price.....\$0.15



PUMP HOSE

Has $\frac{1}{8}$ in. hole.....	Foot	\$0.15
Has $\frac{3}{16}$ in. hole.....	"	.15
Has $\frac{3}{16}$ in. hole Extra Heavy.....	"	.20
Has $\frac{5}{16}$ in. hole.....	"	.25
Has $\frac{3}{8}$ in. hole.....	"	.30

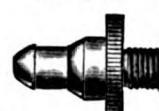
For Clamping Hose to Pump Connection.	Each.	Doz.	100
Each.	Doz.	100	
$\frac{3}{8}$ in. inside...	\$0.10	\$1.00	\$6.00
$\frac{7}{16}$ " " ...	.10	1.00	6.00
$\frac{1}{2}$ " " ...	.10	1.00	6.00



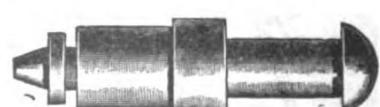
No. 13
Hose Clamp.
Price.....\$0.30



Hose Union for $\frac{3}{16}$ to $\frac{5}{16}$ or $\frac{3}{8}$
For Coupling Large and Small Hose
Price.....\$0.25



NEVERLEAK
Price.....\$0.15



Pressure connection for Pressure Tanks.
For $\frac{5}{16}$ or $\frac{3}{8}$ in. hose... \$0.50

Original from

UNIVERSITY OF MICHIGAN

LIQUID VENEER



4 oz. bottle.	Price.....	\$0.25
12 " "	" .....	.50
1 qt. "	"	1.00
½ gal. "	"	1.50
1 gal. "	"	2.50

"PURE"
LINSEED OIL SOAP



This Soap is made of Pure Linseed Oil and contains no free Alkali, therefore it is a varnish food as well as a cleaner; it will not injure the finest varnished surfaces and has no equal for removing grease and oils, being the only Linseed Oil Soap that is labeled Pure. It must be so, as the U. S. Government required linseed oil to be pure on account of it's being used as a drug.

5 lb. pail.....	\$1.00
10 " "	1.75
25 " "	3.00
50 " "	5.00
1 Bbl., about 500 lbs., per lb.....	.07



MAJESTIC BODY POLISH

It cleans and revives, as well as preserves the original finish of all varnishes, polished and enameled surfaces.

It is guaranteed not to gum or injure the finish, and to give entire satisfaction in every respect; unlike other goods of its nature, it does not leave a greasy sediment to catch the dust, as the ingredients are all neutral, and the polish rubs dry without additional labor, imparting a beautiful gloss to the surface.

5 oz. Bottle.	Price	\$0.25
10 " "	" .....	.50
1 pt. "	" .....	.75
1 qt. "	"	1.25
1 gal. "	"	3.50

ROCK ISLAND
SHEEP WOOL
SPONGES



We guarantee these to be genuine Rock Island Sheep Wool Sponges. They are the toughest money can buy. Price, each \$1.00

Chamois Skins

These Chamois Skins are the best French Oil Dressed, being very soft and of large size, about 24 x 29 in. Price, each \$1.25

White Waste



Small Box.	Price	\$0.10
Large bag containing about 5 lbs.....		.60

BRAKE LINING



"YORKSHIRE BRAND"

Is made of long fibre Egyptian cotton and treated with different materials to prolong its life.

1 in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	\$0.32
1½ in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	.43
2 in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	.55

GRIP BESTOS BRAKE LINING

Is made of woven asbestos with copper wire woven in the warp to strengthen it.

1¼ in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	\$0.45
1½ in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	.50
2 in. wide, about $\frac{1}{4}$ in. thick.	Price, foot	.65

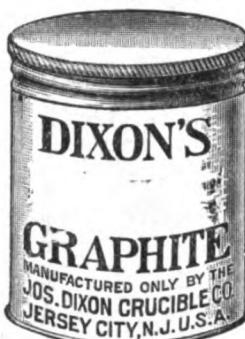
Graphite Lubricant



No. 688. It consists of a high grade graphite grease in which is incorporated a finely ground cedar sawdust, for sliding and planetary transmissions, also differential gears.

5 lb pail \$1.25
10 lb pail 2.50

Dixon's Flake Graphite



No. 632-2. Made from the purest and most carefully selected powdered graphite, and ground to an impalpable degree of fineness. Suitable for gears, chains, bearings, etc., when mixed with oil.

1 lb bag, Price \$0.25

Stick Graphite



For Chains, Gears, etc.
Stick $\frac{5}{8} \times 4$ in. Price \$0.10
In tin push bottom box. Price15

Solvolite



Globe Metal Polish

Puritan Metal Polish



This is a most satisfactory polish for nickel, brass, bronze, copper, silver or glass and is especially useful for brightening the metal parts on automobiles and bicycles. Apply a small quantity with a rag and rub slightly and the result will be quick and lasting.

Gallons only.
Price \$2.00



This is a most satisfactory Polish for Brass, Nickel, Bronze, Copper and Silver.

1/2 pt. Can.	Price	\$0.20
1 "	"	.35
1 qt.	"	.60
1 gal.	"	1.40

Carbon Remover
Quickly and absolutely removes all deposits of carbon from cylinders, piston rings and valves, producing more power and speed, and eliminates all troubles caused by the presence of carbon deposits within the motor.

Application is very simple.
1 qt. \$1.00
1/2 gal. 2.00
1 gal. 3.75

Monarch Metal Polish



Pre-eminently superior to all other polishes; instantly cleans Silver, Nickel, Brass, Copper, Zinc, Steel and all metal surfaces, leaving a lasting brilliancy; it is not an experiment, it is the result of years of research by an expert chemist; it is proclaimed by all who have used it to have no equal.

1 pt. Can.	Price	\$0.45
1 qt.	"	.60
1 gal.	"	1.50



For Brass, Copper, Nickel, G1 Bath Tubs and Mirrors. Mix with water or gasoline.

1 lb. Box. Price \$0.75

Original from
UNIVERSITY OF MICHIGAN

Clover Brand Valve Grinding Compound



For grinding in valves, piston rings and crank shaft bearings. It will not melt, run or dry up. Box contains two grades.
Price per box \$0.40

Diamond Pulvis Compound



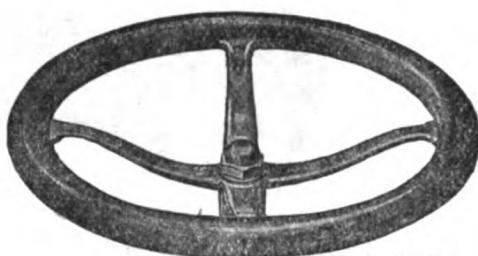
A remarkable grinder for those who desire the best results. It is put up in collapsible tubes and is always moist. Package contains one tube each, coarse and fine.
Price per set \$0.25

Eureka Valve Grinding Compound



Will grind valves that are in the worst possible condition in a very few minutes. Box contains three grades, coarse, medium and fine.
Price per box \$0.50

Steering Wheel



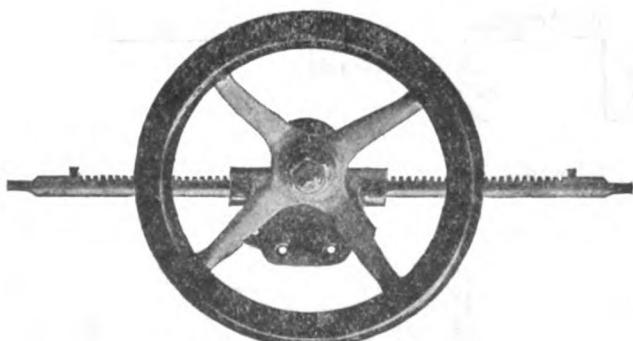
Four arm, brass center, ebony finished rim.
Price 14 inch \$4.25
Price 15 inch 5.25

Steering Wheel Grip



For automobiles and motor boats. Indispensable for safety and thorough control. Made in black and red rubber.
Price for any size wheel \$3.00

Launch Side Steering Wheel



Wood rim and brass spokes.

10 inch wheel, price \$ 8.00
15 inch wheel, price 10.00

Original from
UNIVERSITY OF MICHIGAN

BILLINGS & SPENCER 8 INCH WRENCH.



Drop forged throughout, full case hardened finish; an ideal auto wrench.
Price wrench less attachment....\$1.00 Price pipe attachment\$0.40

Billings & Spencer "E."



"E" 7 in. closed, opens 1 3/4 in. Price\$1.00
"B" 5 in. closed, opens 1 in. Price75

Billings & Spencer "A."



4 1/2 in. closed, opens 1 in. Price80.75

Mossberg Nos. 2, 3.



No. 2, 6 1/2 in. long, Nickel Plated\$0.75
No. 3, 8 in. long. Nickel Plated 1.00

Mossberg No. A 1.

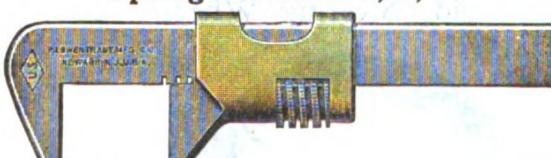


Has Case Hardened Jaws, Opens 5 inches.
Price80.35

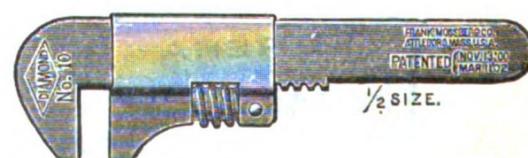


Length 5 inches. Price\$0.20

Springfield Nos. 1, 4, 7.

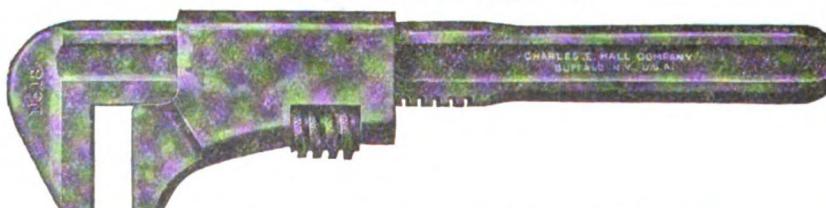


No. 1, price, each\$0.35
No. 4, price, each30
No. 7, price, each20



Length 5 inches. Price\$0.30

No. 18 Auto Wrench.

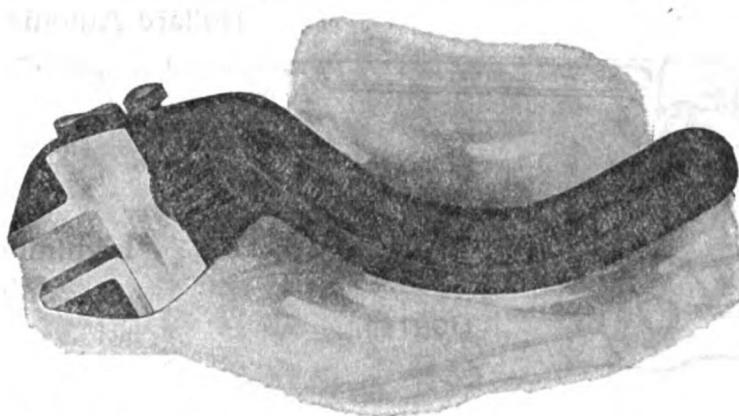


Fluted Drop Forged Bar, Malleable Jaw and Case Hardened.
Mottled Finish 16 oz. Weight Opens Length Thickness Jaw Price
2 1/2 in. 9 1/2 in. 3/8 in. \$1.00

Original from

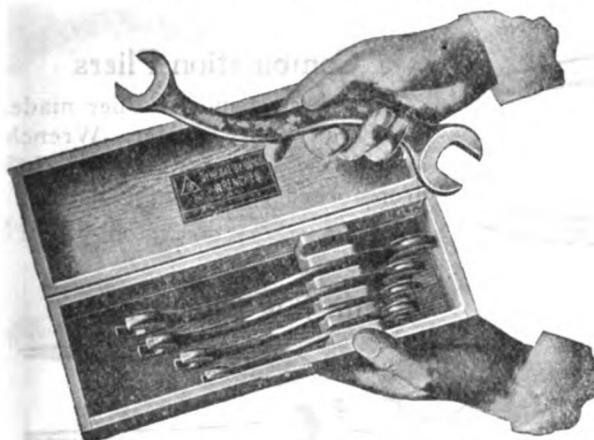
UNIVERSITY OF MICHIGAN

BILLINGS & SPENCER ADJUSTABLE "S" WRENCH



8 inches, embodies all the advantages of the solid machine wrench, together with the convenience of an adjustable wrench. Every part is Drop Forged; the thumb screw securely locks the nut when the wrench has been adjusted to the opening desired. Price.....\$1.00

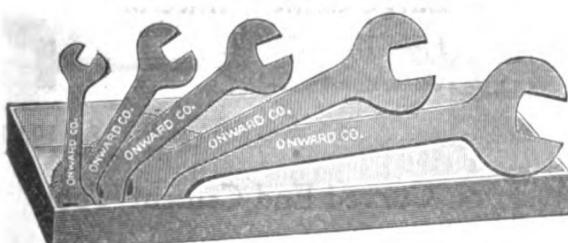
General Service Wrench Set



No. 68. This set consists of the following drop forged wrenches:

Nos. 560, 561, 562, 563, 564, packed in neat wood case. Price per set.....\$2.00

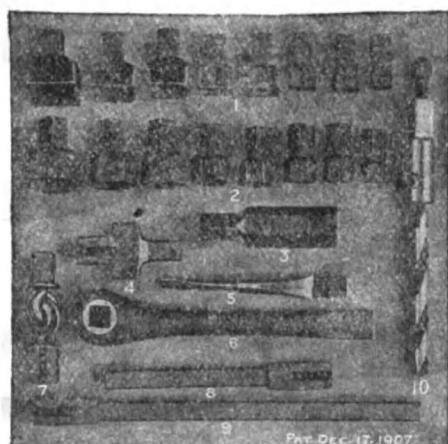
General Service Wrench Set



No. 1. They are light, strong, and durable, 5 wrenches, 10 different size openings, no duplicates. They are carefully designed to prevent springing of jaws, with a temper never before found in a wrench.

Price per set.....\$1.75

Champion Ratchet Set



No. 2. This set enables the use of the wrenches in cramped and difficult places, where no other wrench will reach; may be used at an angle of 45 degrees, still retaining the socket square upon the nut; sockets fit all sizes of nuts, bolts, set-screws, lag-screws, etc., drill socket takes standard size round or square shank drills.

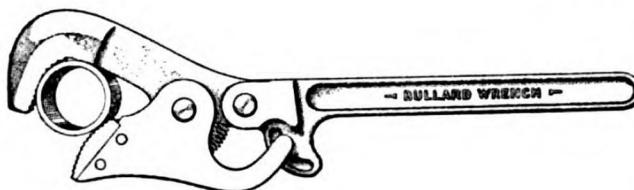
Price, complete set.....\$8.00

Falcon Pipe Plier



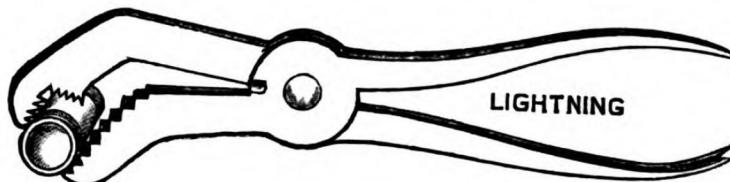
For light work.....\$0.40

TOOLS.

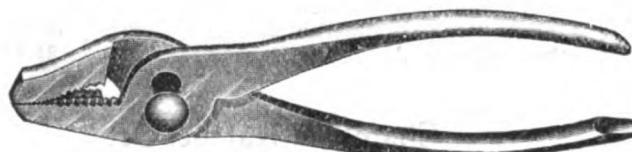
**Bullard Automatic Wrench**

Greatest gripping effect with no crushing strain.

No. 0	0 to $\frac{3}{4}$ inch.....	Price \$0.75
No. 1	$\frac{1}{8}$ to $1\frac{1}{4}$ inch.....	Price 1.15
No. 2	$\frac{3}{8}$ to $1\frac{1}{8}$ inch.....	Price 1.35

**Lightning Plier and Wrench**

6 inch.....	Price \$0.75
8 inch.....	Price 1.00
10 inch.....	Price 1.25

**Victor Universal Plier.**

Will adjust itself to any shape half round, three square, or parallel; will take in pipe from $\frac{3}{8}$ to $1\frac{1}{4}$ in.

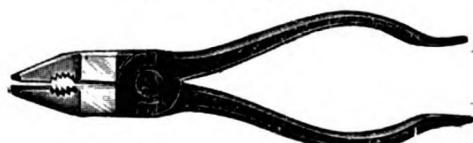
Price, Nickel Plated.....\$0.75

**F. D. Gas Pliers**

8 inch.....	Price \$0.50
10 inch.....	Price .60

Thin Jaw Plier

7 $\frac{1}{2}$ in. long, jaws $\frac{1}{8}$ inch thick.....\$0.75

No. 628 Plier

6 inch Nickel Plated.....Price \$0.50 Price\$0.25

Small Flat Plier

Price\$0.15

File Handles

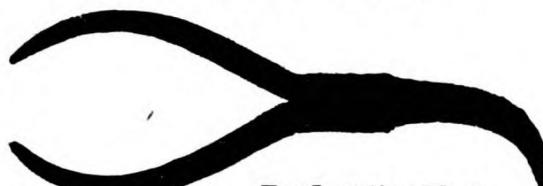
Small, each.....\$0.03
Medium, each.... .04
Large, each05

Curved End Cement Tool

Medium sizePrice \$0.60
Large sizePrice .75

TOOLS

PARKS CURVED END PLIER



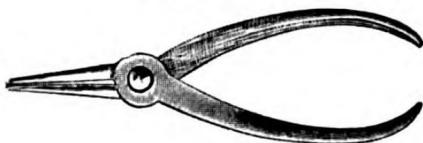
For Inserting Plugs.

Small \$0.60 Large \$0.75 Price \$0.15

LODI PLUG PLIER



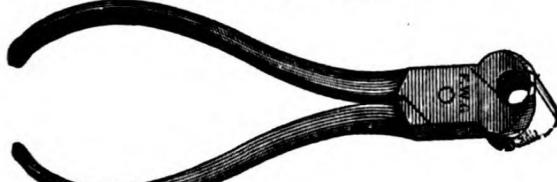
FLAT PLUG PLIER



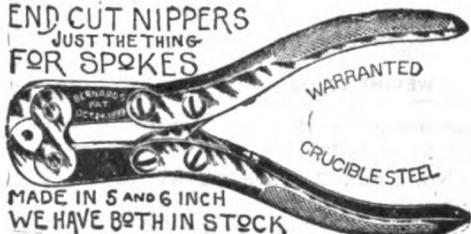
Price \$0.15

NOONAN'S
SLIM JAW CURVE
PLUG PLIERCurved end. Price \$0.75
Straight end. Price 0.75

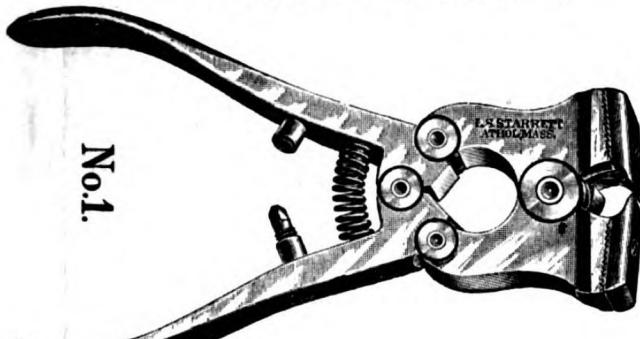
F. CUTTING NIPPER



6 inch. Price \$1.00 Price \$1.50

END CUT NIPPERS
JUST THE THING
FOR SPOKES

STARRETT ADJUSTABLE JAW NIPPER

Price \$2.00
Price, Extra Jaw30

AUTO NIPPLE GRIP

For tightening or loosening wire
wheel spokes.

Price \$0.75

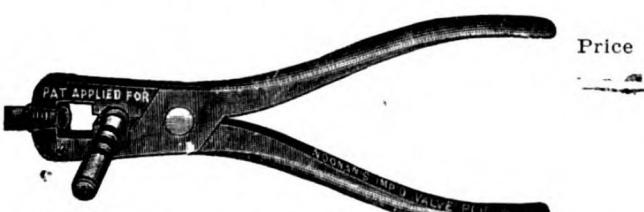
PATENT KEY RING



The simplest and best key ring made.

Price \$0.15

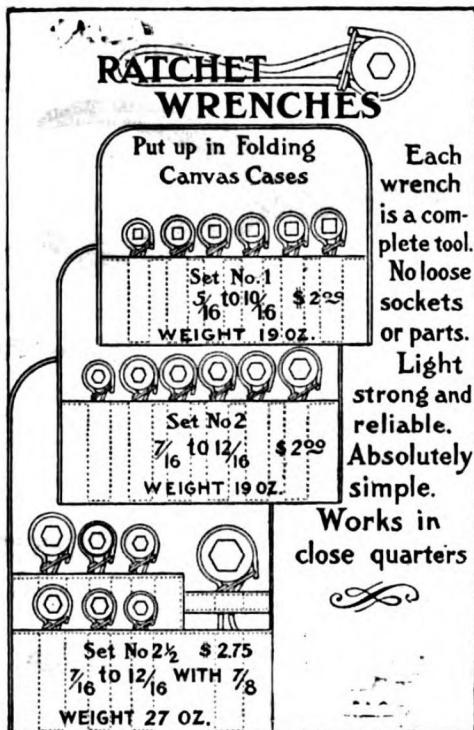
AUTO TIRE VALVE PULLER

End of Jaws are threaded same as valve.
Price \$0.301 in. wide
1 1/2 in. wide

PAINT BRUSHES

Each. Doz.
\$0.10 \$0.75
0.12 1.00Original from
UNIVERSITY OF MICHIGAN

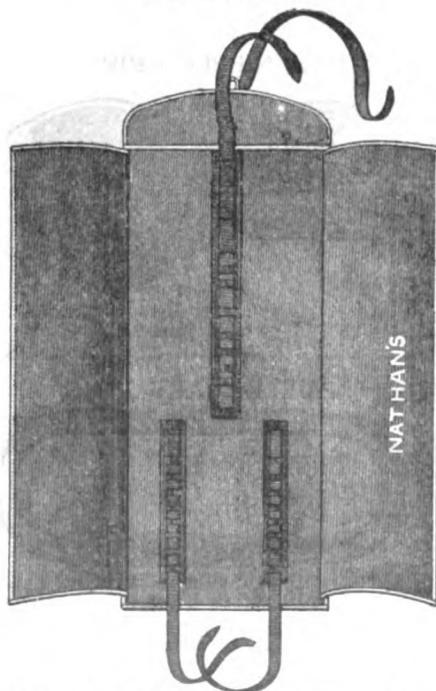
RATCHET WRENCH SET



These sets are worth their weight in gold, for quickness and reliability they have no equal.

Sets No. 2 and 2 1/2 are carried in stock. See prices above.

TOOL ROLLS



No. 5 Made of heavy army duck, holds 21 tools and has sliding straps, Price.....\$2.00

No. S.H.3 Made of heavy army duck, holds 30 tools, straps, thoroughly riveted. Price 2.50

No. 25 Made of extra heavy brown duck, has sliding straps, holds 28 tools. Price.... 3.00

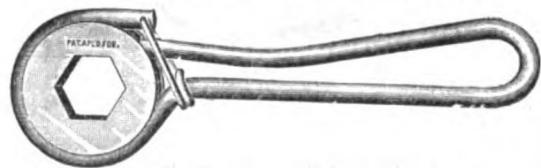
NOONAN'S CHISELS



The name "Noonan" is known from coast to coast for his remarkable method of tempering chisels, punches, etc.

Set No. 8, Ten Tools, 4 ins. long. Price... \$1.75

FISK TIRE BOLT, SPARK PLUG, OR CLINCHER TIRE LUG WRENCHES



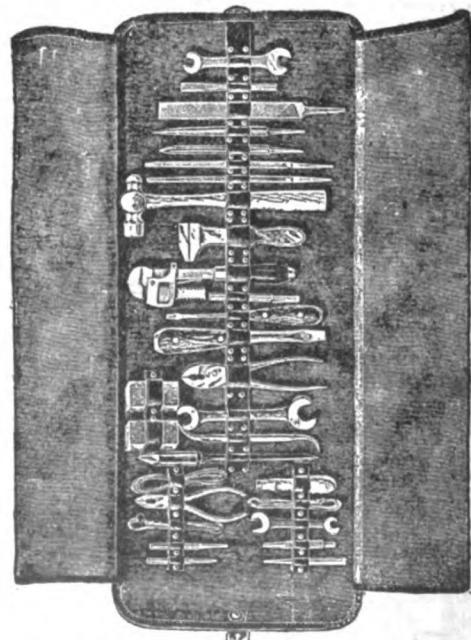
You all have experienced the trouble, and lost time in removing tire lugs and bolts. With this little instrument they are removed or put on in a few seconds, and will not wear the corners of the bolts and nuts.

Price, Spark Plug Wrench.....\$1.00

Price, Fish Tire Bolt Wrench..... .50

Price, Clincher Tire Lug Wrench..... .50

CHAMPION REPAIR KIT



Made of best grade waterproof duck, fitted with 27 of the best and most needed and useful tools and supplies that can be used on the road or at home.

Price, complete set..... \$12.00

Original from
UNIVERSITY OF MICHIGAN

TOOLS

Crucible Steel Screw Driver



4 in. blade. Each.....\$0.12 Dos.....\$1.20
 6 in. blade. Each.....14 Dos.....1.50
 8 in. blade. Each.....20 Dos.....2.00

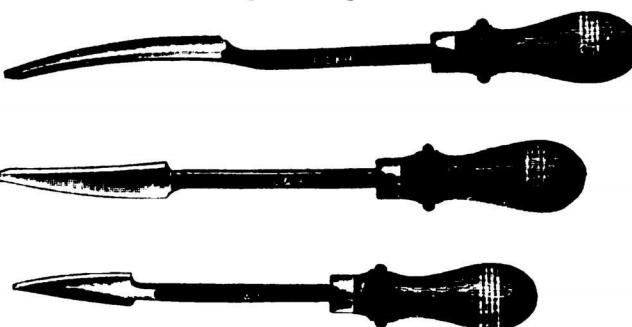
Perfect Handle Screw Driver



"Machinist"

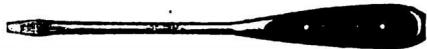
The most substantial Screw Driver ever made.
 Length over all.....9 $\frac{1}{2}$ inches
 Length of blade.....4 $\frac{1}{2}$ inches
 Size of square.....7-16 inches
 Width of point..... $\frac{1}{16}$ inches
 Thickness of point.....1-16 inches
 Price.....\$1.00

Bearing Scrapers



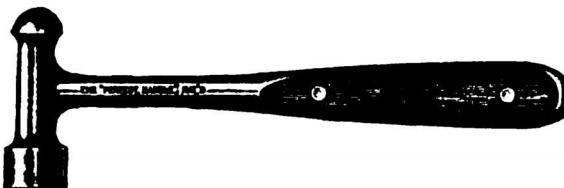
These bearing scrapers are made of the very best material throughout, finely finished with rose colored, polished handles. Set is composed of three scrapers.

Price\$3.50

Perfect Handle Screw Driver,
"Regular"

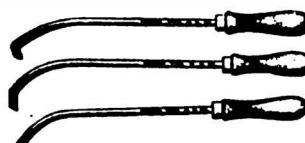
Body of Screw Driver is a one-piece drop-forging, and wood handles are inserted in pockets of steel body. End of steel body forms a hammer end.
 Price, 4 in. blade.....\$0.35
 Price, 6 in. blade.....50

Perfect Handle Auto Hammer



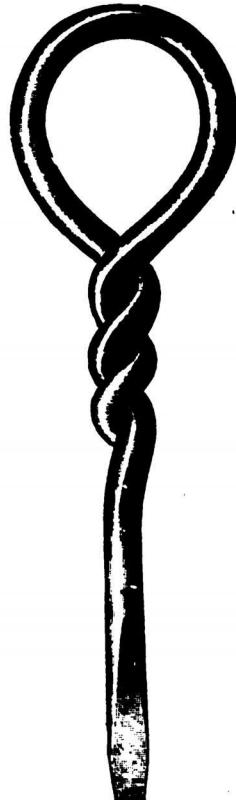
A solid, one-piece, drop-forging with inlaid wood handles. Price\$1.00

Carbon Scrapers



Designed for use in removing soot and carbon from pistons, cylinders, etc., etc., hand forged from crucible steel, mounted into hard wood handle.

Price per set\$2.50

Twist Screw
Driver

Bent End Screw Driver



6 inches long. Price\$0.50

Split Cotter Puller



Price\$0.60

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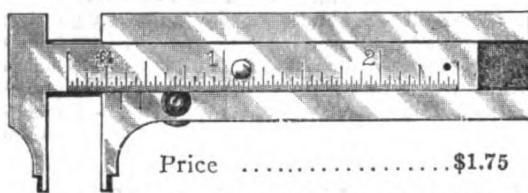
4 $\frac{1}{2}$ in. long. Price \$0.10
Original from

UNIVERSITY OF MICHIGAN

TOOLS



No. 425. INSIDE AND OUTSIDE CALIPER RULE



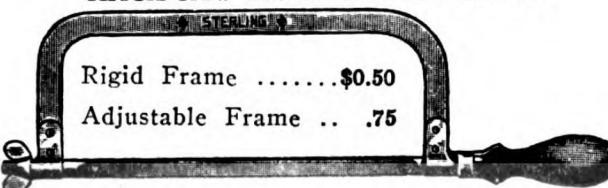
Price \$1.75

FOLDING ONE FOOT STEEL RULE



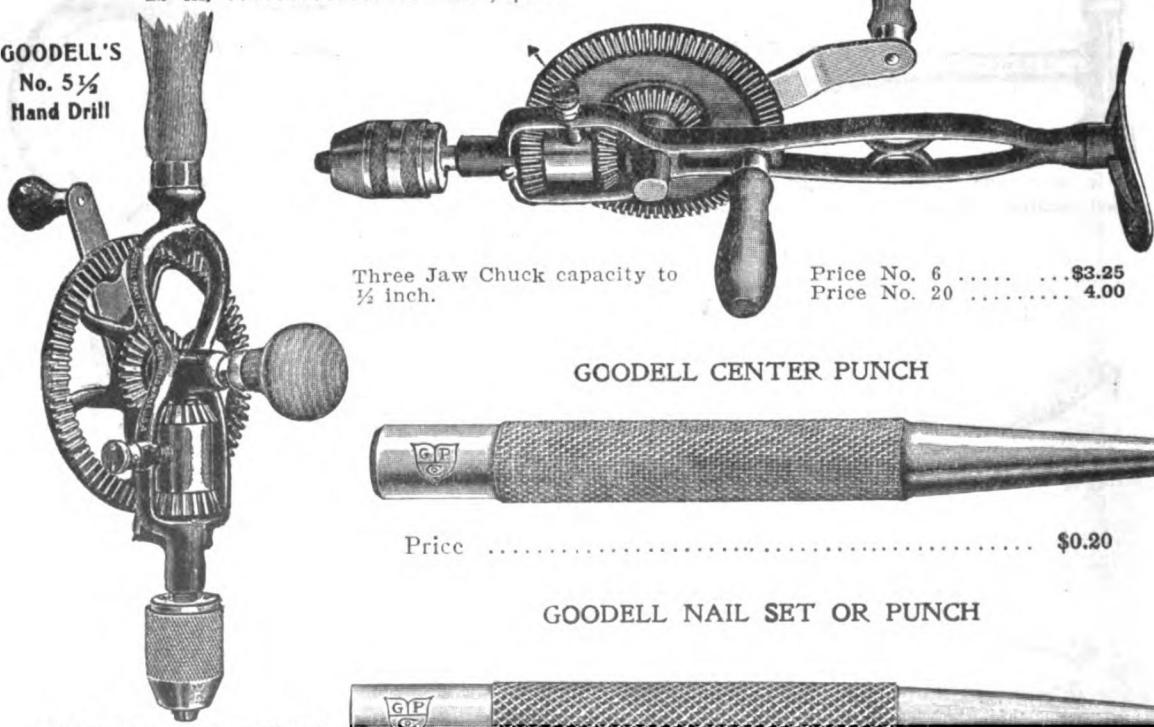
Price \$0.20

HACK SAW FRAMES AND BLADES



Rigid Frame \$0.50

Adjustable Frame .. .75

Blades, 8 in.....dz., \$0.60 10 in.dz., \$0.65
12 in.dz., \$0.75GOODELL'S
No. 5 1/2
Hand Drill

GOODELL CENTER PUNCH



Price \$0.20

GOODELL NAIL SET OR PUNCH



Price \$0.20

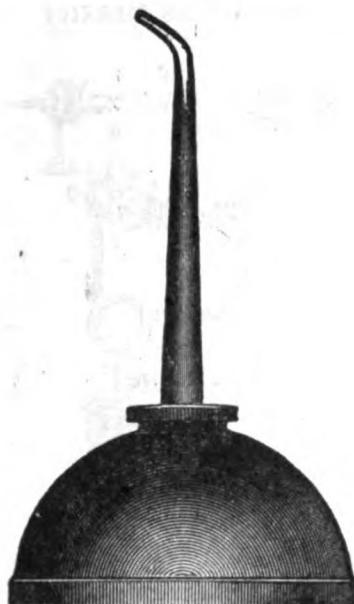
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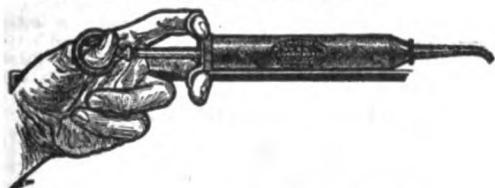
No. 5 1/2 Three Jaw Chuck capacity to 3/8 in. \$2.80
No. 5 1/2 B. Three jaw Chuck capacity to 3/8 in. \$2.80

Price \$2.80

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**"Steel Oiler, Copper Plated"**

NO. 13A	5 oz.	5 in. straight	\$0.50
NO. 14A	1/2 pt.	3 in. straight	.50
NO. 14AA	1/2 pt.	5 in. curved	.50
NO. 14B	1/2 pt.	9 in. curved	.50

N. F. O. OIL OR DOPE GUN

Body and spout made of heavy gauge brass, and is the most substantial and useful gun on the market.

Price..... \$1.50

DOPE GUN

This device is for forcing dope into transmission gears, differential gears, dope cups, etc., and is made extra heavy throughout. Barrel is 6 x 1 1/8 inches. Spout 10 1/8 inches long.

Price..... \$1.75

WAXED CORD

This will be found one of the most useful articles in your tool kit.

Price, 1/2-lb. spool, \$0.35

Price, 1-lb. spool, \$1.25

OBLONG OIL CAN

Cut about one half size.

Price..... \$0.15

PERFECTION OIL CAN

Cut about one half size.

Price..... \$0.25

EMPRESS RATCHET GREASE CUPS

Where there is vibration a special grease cup is needed; one which will not lose its cap; in the Empress the cap positively will not work off.

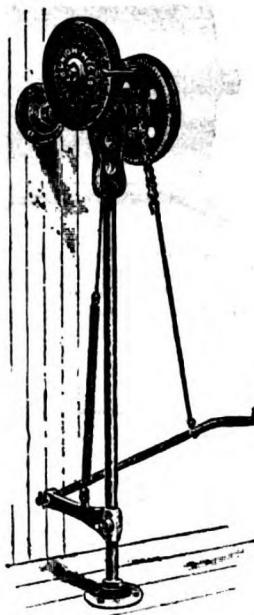
No.	Inside Diam.	Pipe size.	Capacity.	Price
000	3/4 in.	1/8 in.	1/4 oz.	\$1.05
00	1 in.	1/8 in.	1/2 oz.	1.25
0	1 1/4 in.	1/4 in.	2 oz.	1.50

Original from

UNIVERSITY OF MICHIGAN

Turner Brazier

No. 55 Price, complete, 5 gal. tank... \$27.00
 No. B14 Head, with fire bricks 15.00
 No. S11 Burners, each 6.00

Grinder

No. 1 Each \$5.00
 Price, 10 gal. tank, complete \$27.00
 Price, 5 gal. tank, complete 24.00

Red Cross Brazier**Spelter**

Quick Flowing, Fine Grain.
 Price per lb \$0.40
 Price 5 lbs. 1.75

Waterproof Corundum Wheels

1/2 in. 5/8 in. 3/4 in. 1 in.

	\$0.70	\$0.80	\$0.90	\$1.10
5 in.	0.88	1.05	1.20	1.50
6 in.	1.08	1.30	1.50	1.90
7 in.	1.30	1.55	1.80	2.30
8 in.	1.55	1.85	2.10	2.70
9 in.	1.80	2.10	2.50	3.10

Brazing Compound

We have experimented with brazing compounds for the past eight years and now have a Flux that is pronounced the best on the market.
 Price, 1 lb. \$0.40
 Price, 5 lbs. 1.75

Cast Iron Brazing Outfit

Price, complete set \$1.50
 Price, Braziron compound only 0.75
 Price, Brass Spelter, per lb 0.40

Air Dry Enamels

Black, White, Royal Purple, Buttercup Yellow, Robin's Egg Blue, Extra Deep Blue Green, Brewster Green, Bright Red, Sterling Green, Carmine Maroon, Stearns Yellow, Napoleon Blue, National Blue, Light Blue, Dark Blue.

Price, 1/4 pint can \$0.25
 Aluminum Paint, 1/4 pint can 0.35

Original from UNIVERSITY OF MICHIGAN

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